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# Soldiers, Cities, and Landscapes

## Papers in Honor of Charles L. Fisher

Foreword by Charles E. Orser, Jr.

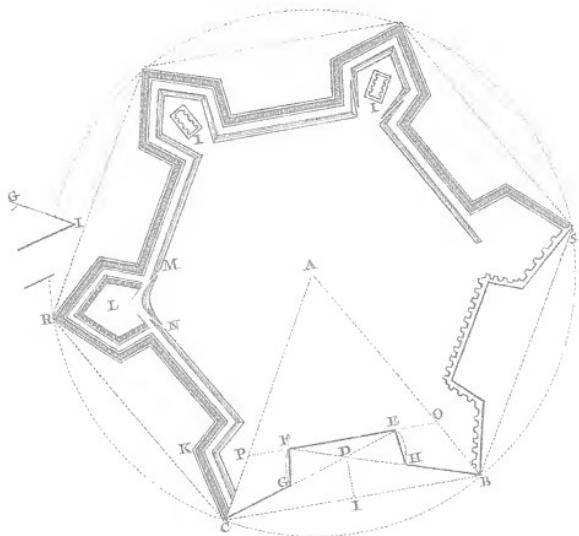
Edited by Penelope Ballard Drooker  
and John P. Hart

NEW YORK State Museum



# Soldiers, Cities, and Landscapes

Papers in Honor  
of Charles L. Fisher



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# **Soldiers, Cities, and Landscapes**

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Edited by  
Penelope Ballard Drooker and John P. Hart

New York State Museum Bulletin 513



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Printed in the United States of America

Copies may be ordered from:

Publication Sales  
3140 Cultural Education Center  
New York State Museum  
Albany, New York 12230  
Phone: (518) 402-5344  
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Library of Congress Control Number: 2010941894

ISSN: 0278-3355  
ISBN: 1-55557-253-7

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## FOREWORD

It gives me great pleasure to write the foreword for this collection of papers honoring the professional career and research of Charles L. Fisher, the first Curator of Historical Archaeology at the New York State Museum. Though I never had the pleasure of meeting him, I certainly knew about his research. Since coming to the New York State Museum, I have acquired a far greater appreciation for the breadth of his interests and the depth of his thinking about subjects that not only interest me but which are at the forefront of thinking in historical archaeology. His diverse interests—extending from pre-Contact archaeology to the nineteenth century—are well represented in this timely volume.

I knew about Chuck Fisher's research on Revolutionary War sites in New York State, but I was most impressed by a short article he included in *Nineteenth- and Early Twentieth-Century Domestic Site Archaeology in New York State*, New York State Museum Bulletin 495, published in 2000. Chuck's chapter was entitled "Archaeology and the Rural Landscape" and focused on the spatial organization of farms, a topic I had researched extensively for my investigation of the changing settlement structure of Millwood Plantation in South Carolina. At the time the paper was published, I was continuing to research this topic in rural Ireland, so I was interested in his perspective and approach.

Reading Chuck's paper, I was impressed with the depth of his argument, and with three of his points in particular. First, he stressed that material objects embody active social relations. He understood that artifacts are not simply functional tools for living, but that they have deeper, more profound meanings that can morph and change over time. This kind of thinking was then becoming commonplace in much archaeological interpretation, but his inclusion of it in relation to farmstead archaeology was forward-looking and refreshing. Second, he expressed his sincere desire to use archaeology to illustrate the lives and social conditions of men and women, who, as he put it, were "not included among the elite." I have maintained for years that the best feature of historical archaeology rests with its practitioners' ability to give voice to the historically voiceless, to illustrate what might be forgotten or purposefully misremembered. Chuck clearly felt the same way, and as a result, he willingly studied sites that might not otherwise capture national attention. And third, his statement that "The transition to the new

domestic landscape was not a smooth change, but rather one of enormous social tension and conflict" demonstrated that he fully understood the social complexities of modern life, that living in capitalism means struggling for success and ruining anything that might be perceived as failure for lack of effort.

Chuck's paper concentrates on the John Ellison House located in the Hudson River valley in Orange County, New York. Ellison was a leading citizen who lived in a solidly built stone house of symmetrical Georgian style. The home also served as the headquarters for several officers of the Continental Army throughout the American Revolution. Like many houses constructed by those who aspired to greatness in the mid-eighteenth century Anglo-American world, Ellison's home proudly announced his claim to social, political, and economic prominence. In 1800, Ellison even kept enslaved African Americans on the property, but shortly thereafter, apparently having accepted the inhumanity of lifetime bondage, he freed them rather than have them undergo the humiliation of public auction or private sale.

One intriguing element of Ellison's life, and a life-altering transformation that Chuck fully appreciated, was Ellison's acceptance of Methodism. Today, we may wish to see Ellison's gravitation to the Methodist church as simply a personal choice, one that involved no one but himself. Chuck, however, understood the inherent contradiction of this action. The heart of the contradiction is embodied in the manumission of his bondsmen and women. Viewed from one angle, we may see his act as one of Christian charity and kindness, one that is perfectly aligned with his Christian perspective. But seen differently, we might perceive his action as simply self-promoting. Was Ellison's move to Methodism merely economically advantageous? After all, at the time, the Methodist Church was the capitalists' religion of choice. Early-nineteenth-century Methodist authorities—including Francis Asbury, an Ellison acquaintance—advocated the classically American and distinctly capitalist virtues of hard work, temperance, and the adoption of a rigid work discipline (the so-called "Protestant Ethic"). Personal betterment, both to ensure security in this life and to prepare a place in the next, was an integral element of the capitalist mindset. The apparent contradiction between kindness toward others at considerable economic expense and the ethos of working hard for the sake of

profit lead us to ask today whether Ellison's conversion was heartfelt or simply convenient. Should we accept Ellison's faith without question or should we be skeptical of his all-too-earthly motives? We might never be inclined to wonder without Chuck's insistence.

Chuck also adeptly showed another of Ellison's contradictions, this one involving only the decidedly secular world. Ellison, who had served as the local supervisor of roads before the Revolutionary War, was, after the war, engaged in destroying the new turnpike that ran past his property. Was this apparent Janus-faced promoter of capitalist profit and Methodist morality also a believer in a nineteenth-century version of "not in my backyard"?

In 1999, when Chuck conducted archaeological excavations at the Ellison House, he interpreted the transformations of the landscape as reflective of the complex, contradictory social relations Ellison maintained. These relations included Ellison's struggle against the new turnpike and the capitalist developers who promoted it. The transformations of the landscape that Chuck observed in the archaeological deposits—such as the flattening of the lawns and the formalization of the boundary between the public and private spaces—convinced him that they reflected "the larger transformations" that were "altered by new relations of capitalism." Put another way, Ellison, like many of us today, was enmeshed in a complicated and often rather chaotic network of relations that could operate separately or combine together for any specific action or attitude. The transformations in the landscape that Chuck recognized at this one simple farm were reflections of the transformations and conflicts Ellison himself experienced.

The intellectual depth and power of Chuck's short paper is perhaps best understood in the context of farmstead archaeology. Since the development of the cultural resources industry in the United States, archaeologists, site managers, and governmental officials have wrung their hands over the ubiquity of America's farmsteads. Any large archaeological survey in an area historically agricultural is likely to discover hundreds

of farmsteads from numerous periods of history. Some of them, perhaps the most troubling to confront, date to the twentieth century. Concerned archaeologists have written articles and held specialized conferences to identify and implement the best practices for dealing with what many consider to be annoying cultural properties. Some governmental agencies would prefer to destroy farm houses rather than to have archaeologists initiate serious studies. After all, they think, we have hundreds of farmsteads, and nothing really "historical" ever happened at them anyway. They were simply places where common people lived out unremarkable lives unnoticed by history. Chuck Fisher clearly recognized the inherent fallacy of this line of thought and was willing to demonstrate the interpretive power of the archaeology of the commonplace and the usual.

Readers will note that the present volume is only partially dedicated to the archaeological study of farm life. That, by design, is precisely the point. I have focused on Chuck's impact on my own thinking and research perspective as it pertains to rural landscape transformation. It would be shortsighted, however, to imagine that Chuck was only interested in farming. This was just one of his many interests. The authors of this volume, each in an individual manner, have paid homage to Chuck's professional career and have explored topics that interested him. I cannot say whether he would have copied their perspectives and approaches if he had written the articles. The salient issue, however, is that this volume, like Chuck's own body of work, stands as a lasting tribute to an impressive and important career. The same can be said of the immensely impressive Charles L. Fisher Gallery at the New York State Museum. This gallery, which was designed by Chuck, is one of the finest permanent exhibits dedicated to historical archaeology in the United States. This visual record of Chuck's achievements, like the present volume, is a justifiable monument to his career and innate intellectual curiosity.

Charles E. Orser, Jr.

## REMEMBRANCE

CHARLES L. FISHER, known to his family, friends, and colleagues as Chuck, would have been very pleased and excited to hear the papers presented in his honor at the New York State Museum symposium, *Soldiers, Cities, and Landscapes*. Unfortunately, he lost his battle with melanoma and passed away on February 8, 2007.

Chuck was the son of Ann and Charles Fisher. He was a remarkable man as a husband, father, son, colleague, scholar, and teacher. He was the first member of his family to obtain an advanced degree. Charlie, as his father is known, was a glass blower for IBM in Putnam County, New York. He made vacuum tubes for advanced research and design of early computers. Today, Chuck's parents live nearby in Rensselaer County.

In the 1960s and early 1970s, Chuck attended the State University of New York at New Paltz for his undergraduate studies. While there he met Bert Salwen and Lenny Eisenburg, the latter a graduate student at the time. Chuck met and associated with a variety of interesting characters who also attended classes at New Paltz. After graduating with his Bachelor of Arts degree in 1971, Chuck enrolled at State University of New York at Albany where he completed his Master of Arts degree in 1974. Other graduate students he befriended at the time included Hetty Jo Brumbach, George Hamell, John Hammer, Beth Wellman, Bill Starna, Jan Townsend, and Steve Marquese, all of whom became professional archaeologists or anthropologists. While Chuck was at SUNY Albany, he also met Karen Hartgen, another graduate student who was soon to become his wife and lifelong companion. Chuck and Karen worked together on the I-88 survey during the early 1970s under the direction of State Archaeologist Bob Funk and the New York State Museum.

In 1973, the New York State Museum was approached by the Power Authority of the State of New York to undertake an archaeological survey of some of its land holdings in the Schoharie Valley. Dr. Funk asked Karen Hartgen and Phil Lord to manage the archaeological investigation of the Breakabeen Pumped Storage Project. Chuck Fisher was one of the field directors working with Karen, and for the rest of their life together they routinely collaborated professionally on archaeological endeavors.

While Karen continued private archaeological consulting, Chuck completed his education at SUNY Albany as a graduate assistant in the Ph.D. program and as director of the Highway Archeology Program.

From 1979 to 1981, he was a research associate in the Public Archeology Program at Rensselaer Polytechnic Institute in Troy. In early 1981, just as he was preparing to leave for the annual meeting of the Society for Historical Archaeology in San Diego, he was asked to join the staff at the New York State Bureau of Historic Sites at Peebles Island. For the next 13 years, he worked there with his colleagues Paul Huey, Lois Feister, Joe Sopko, Joe McAvoy, and other seasonal employees, among them Elizabeth Peña.

In 1995, Chuck joined the staff of the New York State Museum as assistant director of the Cultural Resource Survey Program. He was appointed director of the program in 1999. Most recently, Chuck was the Museum's curator of historical archaeology and curated the exhibition *Beneath the City: An Archaeological Perspective of Albany*, which opened in June 2007 after his death. The exhibit space is now named the Charles L. Fisher Gallery in his honor.

Throughout his adult life, Chuck was an avid and eclectic reader as well as a prolific writer. His tastes in literature ran from Dylan Thomas to Bob Dylan. He especially was interested in the history of the Revolutionary War and the Dutch Colonial Period in New York. During his career, Chuck was well acquainted with the "new archaeology," processual archaeology, and post-processual archaeological analysis. Although trained as a prehistorian, Chuck will be best remembered for his contributions to historical archaeology, especially involving military sites and domestic landscapes.

Chuck genuinely loved to learn, and he loved the challenge of solving the puzzles that the field of archaeology offered him. He shared his enthusiasm for his work and often involved people from diverse fields and backgrounds in his projects and research.

A bibliography of Chuck's published and unpublished works is included as part of this volume, which fittingly serves as a lasting tribute to him and will keep his legacy alive. He would have been gratified to know that it will serve as a resource to inspire future generations of archaeologists.

Chuck is survived by his parents, Ann and Charles, his sister Carol Truebe and her family, his wife Karen, and their children Kate Tubbs, Robert Fisher, and Sarah Fisher, as well as all of his friends.

Karen Hartgen

## PREFACE

On Saturday, December 1, 2007, the New York State Museum served as the venue for a colloquium Penelope Drooker, Elizabeth Peña, and I had organized to honor and commemorate the professional life of Dr. Charles L. (Chuck) Fisher who died on February 8 of the same year. As the following colloquium program indicates, we had no problem soliciting enough contributions to fill the day. In fact, the response to our call for papers was overwhelming. Twenty-six papers by 34 authors were contributed, reflecting Chuck's broad interests in archaeology and the esteem in which he was held by the professional archaeological communities in cultural resource management, academia, and government.

With so many contributions, we decided to organize the colloquium so that the presentations were grouped according to coherent themes. While sorting through the titles and abstracts, it became clear that there were three natural, although not mutually exclusive, groups that reflected recurring themes in Chuck's research: soldiers, cities, and landscapes. This organization worked well and we decided to maintain it in the present volume.

This volume comprises chapters based on 16 of the colloquium presentations. Also included are a remembrance of Chuck's career by Karen Hartgen, Chuck's wife; a bibliography of Chuck's publications; and a foreword by Charles Orser, Chuck's successor as Curator of Historical Archaeology at the State Museum.

In the year before his death, Chuck curated a permanent exhibition for the Museum on the archaeology of Albany, *Beneath the City: An Archaeological Perspective of Albany*. A catalog of that exhibit was published in 2010 by the Museum as New York State Museum Circular 72, edited by Penelope Ballard Drooker. The contents of the catalog are Chuck's work, taken directly from the exhibition. The exhibition, catalog, and this volume stand as fitting memorials to Chuck's professional life and his influence on New York archaeology and the Museum.

This volume would not have reached fruition without the dedication of the contributing authors. I thank each of them for their contributions and their willingness to meet the various deadlines that go along with the publication of a book. I also thank the three peer reviewers, each of whom provided well considered comments and suggestions. Finally, thanks are due to my co-editor, Penelope Drooker, and the Museum's managing editor, Maria Sparks, for their dedication to making this volume a reality.

Publication of this Bulletin was made possible through funding by the New York State Museum Institute.

John P. Hart

**Program for the Colloquium:**  
**Soldiers, Cities, and Landscapes: Papers in Honor of Charles L. Fisher**  
**New York State Museum, Albany, New York**

December 1, 2007

9:00 John P. Hart (New York State Museum) – Welcome

**SOLDIERS**

- 9:15 James L. Hart (Archaeological Research, Inc.) – Soldiers, Missionaries, Merchants, and Natives: The Canadian Journeys of Louis Franquet  
9:30 Bruce B. Sterling (Hartgen Archeological Associates, Inc.) – The Flat Site, An Eighteenth-Century King George's War Skirmish Line?  
9:45 Andrew Farry (Curtain Archaeological Consulting, Inc.) – Spatial Scales and Scaled Spaces: A CAD Analysis of Provincial Encampment Data from Crown Point, New York  
10:00 Elise Manning-Sterling (Hartgen Archeological Associates, Inc.) – Ticonderoga: French Fort Construction on the Eighteenth-Century Frontier  
10:15 Paul R. Huey (NYS Office of Parks, Recreation, and Historic Preservation) – An Overview and Interpretation of the Fort Gage Excavations at Lake George, 1775

10:30 Break

10:45 Nancy Davis (New York State Museum) – Street Archaeology: 2006 Investigations of Fort Edward, New York

11:00 Bill Griswold (National Park Service) – "Nutten Island" — The Eighteenth Century on Governors Island, New York

11:15 Douglas J. Pippin (State University of New York at Oswego) – Distressed for the Want of Provisions: Archaeological Investigations of the British Soldier on Carleton Island (1778–1784)

11:30 Timothy J. Abel and Gary M. Gibson (Jefferson County Historical Society and Sackets Harbor Battlefield Alliance) – A Battleship in the Wilderness: The Story of the Chippewa and Lake Ontario's Forgotten War of 1812 Naval Shipyard

11:45 Elizabeth S. Peña (Buffalo State College) – Intrusive Artifacts and Residual Materials: Challenges in Archaeological Interpretation at Fort Niagara

12:00 Daria E. Merwin, David J. Bernstein, Yoshiko Abe, and Yin Lam (Stony Brook University) – The Archaeology of World War I Training Facilities at Camp Upton, New York

12:15 Lunch

**CITIES**

1:30 Martha Pinello (Monadnock Archaeological Consulting, LLC) – Creating Trade and Land: The Archaeological Evidence in Portsmouth, New Hampshire

1:45 Mary C. Beaudry (Boston University) – Life on the Common, Life of the Common: An Archaeological Biography of Boston Common

2:00 Anne-Marie Cantwell (Rutgers University) and Diana diZerega Wall (City College of New York) – New Amsterdam: From Trading Post to Urban Center

2:15 Leslie E. Gerhauser (Metropolitan Museum of Art) – Hart Tiles and Histories: Dutch Bible Tiles in Eighteenth-Century New York

2:30 Walter Wheeler (Hartgen Archeological Associates, Inc.) – "Once adorned with quaint Dutch tiles . . .": A Preliminary Analysis of Dutch Tiles Found in Archaeological Contexts and Historical Collections in the Albany Region

2:45 Matthew Kirk (Hartgen Archeological Associates, Inc.) – Stewart Dean: The Archaeology of a Pilot, Privateer, and Entrepreneur

3:00 Tracy Shaffer Miller and Justin DiVirgilio (Hartgen Archeological Associates, Inc.) – Life in the Hollow and the Bowery: The Archaeology of Albany's Working Class

3:15 Andrea Lain and Lisa Anderson (New York State Museum) – Cities of Death: Almshouses and the Poor in the Nineteenth and Early Twentieth Centuries

3:30 Break

**LANDSCAPES**

3:45 James W. Bradley (Archlink, Inc.), Meredith Younge and Andrew Kozlowski (New York State Museum) – The Sundler Site: Reconstructing the Late Pleistocene Landscape and Its People in the Capital Region

4:00 Joe Sopko (New York State Museum) – The Outskirts of Albany: Recent Discoveries of Dutch and Mahican Contact and Late Woodland Sites on Papsanee Island

4:15 Kevin Moody and Adam Luscier (Hartgen Archeological Associates, Inc.) – Connecticut Yankees in Luther Forest

4:30 J. William Bouchard (Hartgen Archeological Associates, Inc.) – Out of the Frying Pan and into the Fire: A Revolutionary War Veteran on the American Frontier during the War of 1812

4:45 Corey McQuinn (Hartgen Archeological Associates, Inc.) – "Not in My Backyard": Tenant to Owner Transition on a Nineteenth-Century Adirondack Farmstead

5:00 Martin Pickands (New York State Museum) – Parishville Center: A Self-Sufficient Settlement on New York's Northern Frontier

5:15 Justin A. Tubiolo (St. John Fisher College) – Recreating the Front Property Line at the General William A. Mills House

Participant affiliations at time of colloquium

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## SOLDIERS





## SOLDIERS, MISSIONARIES, MERCHANTS, AND NATIVES: The Canadian Journeys of Louis Franquet

James L. Hart

### INTRODUCTION

In 1879, Francis Parkman discovered a remarkable document during the course of archival research in French Canada (Wade 1947:577, 676). This “copious journal, full of curious observation” was the record of a French military engineer’s tour of Canada in 1752 and 1753 (Parkman 1995:314). Louis Franquet had been ordered by the French court to inspect the defenses of New France in anticipation of another war with Great Britain and the British American colonies. The journal records Franquet’s inspection tour from Québec to Trois Rivières, Montréal, and the forts along Lake Champlain and the Richelieu River. It also includes descriptions of the Native American mission settlements at Sault St. Louis (present-day Kahnawake), the Lake of the Two Mountains (Oka), St. François (Odanak), Béancour, and Lorette. (The towns, villages, and forts inspected by Franquet during his tour of French Canada are shown in Figure 1.1) Appended to the journal in the published edition of his works are his detailed formal reports on the state of the defenses at those locations (Franquet 1889). For the archaeologist, Franquet’s formal reports on the fortifications of New France provide abundant information about the practical application of engineering principles in the North American context. This information can guide the archaeologist in interpreting particular features of excavated fortifications from the period (Fisher 1991:Figure 2 compare with Figure 1.2 on page 4). For the historian, Franquet’s reports present a remarkably comprehensive account of the defenses of French Canada on the eve of its final military struggle. His travel journals also include detailed observations on everyday life in New France, the character of French Canadian society, the customs of the Native Americans settled in the mission villages of the St. Lawrence valley, and relations between the French and their native allies in the mission villages.

Military engineers of the era often exercised their specific expertise in fortification and siege warfare within the broader context of analyzing other factors that could

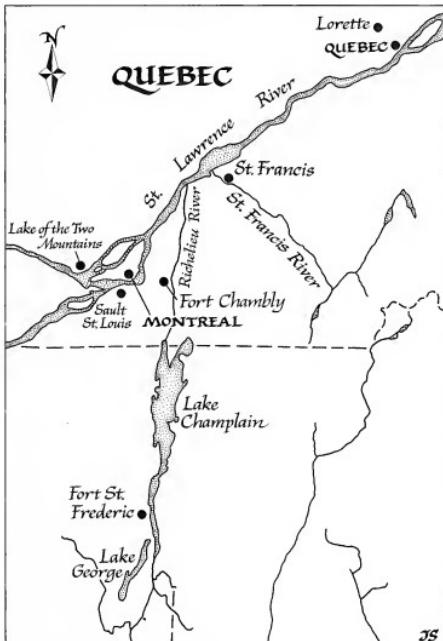


Figure 1.1. Franquet site map.

contribute to military success or failure. Thus the famous Marshall Vauban wrote a treatise on taxation, and also addressed issues of religious toleration, weights and measures, and trade (Cowley 1996:487; Langins 2004:47–48). In some ways, these military engineers were the defense intellectuals of their era, concerned with any matters, such as trade, industrial development, political

structure, and social cohesion that could affect the ability of the state to maintain security and defend against its enemies. Thus, Franquet did not confine his journal and reports narrowly to inspecting fortifications, but rather examined the broader political, social, and economic contexts within which the physical defenses of New France were developed. Parkman and other historians since his time have actually found Franquet's observations and comments on non-military matters too interesting to pay much attention to Franquet the military engineer. Parkman himself drew on Franquet's journal for its "bright glimpses" of "Canadian society in the upper or official class" (Parkman 1995:314). In the last century, the French Canadian historian of the Abenaki people of Québec found in Franquet's journal a poignant portrait of the St. François mission settlement just seven years before its destruction by British American rangers under Robert Rogers (Charland 1964:99–101). More recently, John Demos relied on Franquet for significant details of life at the Iroquois Christian mission settlement of Sault St. Louis, where Eunice Williams, his "unredeemed captive," spent eighty years after her capture at Deerfield in 1704 (Demos 1994:144–149). But historians have generally confined their use of Franquet to isolated topics and interesting, even entertaining, stories about French Canada. They have not fully exploited Franquet's journals and reports for their contribution to understanding the last years of New France.

Franquet's journal illuminates the complex background for his reports on purely technical military matters, and he demonstrates how the governing structure of New France and the nature of French Canadian society affected the state of the colony's defenses, right down to the maintenance of walls at frontier forts. And his reports and accounts of fortifications at the Native American mission villages demonstrate how the peculiar relationship between the French and their native allies in North America played out on practical issues such as whether and how to construct a simple defensive wall. Franquet's journal deserves to be recognized, alongside the well-known journals of Montcalm, Bougainville, Levis, and Pouchot, for this contribution, despite the absence of the drama and excitement of the campaigns and battles recounted in those other journals. Indeed, Franquet's evaluations of the weaknesses in New France's defenses, and in the colony's governing structure, contribute to understanding the outcome of those very campaigns.

## MILITARY ENGINEER

First and foremost, however, Louis Franquet was a professional military engineer, and his technical evaluation

of New France's physical defenses was the point of departure for his more general observations and assessments of the colony. Franquet was born at Condé, France, in 1697, the son of an engineer, in an era in which military engineering was frequently a family profession (Blanchard 1979:166–168; Langins 2004:79–88; Thorpe 1974:229–231). He was commissioned in the army at the age of 12, and served in infantry regiments from 1709 to 1720. In 1720, he was admitted to the engineering corps and served as a military engineer in Europe for the next thirty years. During that time, he participated in campaigns in Italy, Germany, and the Netherlands. He was awarded the cross of Saint-Louis in 1741, and was promoted to lieutenant-colonel in 1747. While serving as chief engineer at Saint-Omer, he was asked to go to Isle Royale (Cape Breton Island) to inspect the defenses of the colony and to develop plans to put the fortress at Louisbourg and other places in a state of readiness (Thorpe 1974:228–232).

After arriving at Louisbourg in August 1750, Franquet examined its buildings and fortifications, and conducted tests to determine the causes of structural deterioration. He developed voluminous maps, plans, and sections detailing the existing structures and recommendations for repairs and improvements (Fry 1984:I:165–166; II:77–85). In 1751 he toured the remainder of Isle Royale, as well as Isle Saint-Jean (Prince Edward Island), Baie Verte, and Fort Beauséjour (in present-day New Brunswick) (Franquet 1924:111–140). In 1752 his original assignment was expanded to include inspection of fortifications in the St. Lawrence and Richelieu valleys (Thorpe 1974:229, 231).

We have little specific information about Franquet's training in military engineering. Much of his training was probably conducted in the field, as an apprentice to experienced officers in the corps of engineering. Admission to the corps would also have required successful completion of entrance and final examinations (Langins 2004:79–88). The substance of the training that Franquet received and the technical principles on which he operated are probably reflected in his library, which contained a representative collection of technical manuals and treatises on the principles and practice of fortification and siegework. The estate inventory of Franquet's sister (D'Arthois 1780–1781), to whom the engineer had bequeathed his own estate, lists among other relevant volumes:

- *Introduction de la Fortification avec les Cartes et plans,*
- *Architecture hydraulique par Monsieur Bélidor en deux tomes,*
- *La Science des Ingénieurs dans la Conduite des travaux par Bélidor,*
- *Element de fortification.*

The entry for *Introduction de la Fortification* probably refers to a volume with an almost identical title (*Introduction à la Fortification*) published by the cartographer Nicolas de Fer in 1693. Two of the volumes listed certainly represent the landmark work of Bernard Forest de Bélidor (1698–1761). Bélidor published works of great importance on a wide range of subjects, including hydraulics, mathematics, and civil and military engineering. His most important works were probably *L'architecture hydraulique* (published in four volumes from 1737 to 1753) and *La Science des Ingénieurs dans la Conduite des travaux de fortification et d'architecture civile* (1729). These volumes broke new ground in their empirical approach to subjects such as strength of materials, soil mechanics, and ballistics, as well as in employing mathematical tools such as algebra and integral calculus in solving technical problems (Langins 2004:223–224). The inventory does not identify the author of the volume entitled *Élement de fortification*, but this entry may refer to *Éléments de fortification* (probably best translated *Principles of Fortification*) by Guillaume Le Blond (1704–1781). Le Blond was a professor of mathematics who published a number of works on mathematics and military engineering. Le Blond was also the author of 720 articles dealing with fortification, military engineering, and applied mathematics in Diderot's *Encyclopédie*, including the summary article entitled "Fortification" (Le Blond 1757:191–203).

These works distinguished several systems (e.g., those of Vauban, Menno van Coehoorn, and Blaise-François, Comte de Pagan) of great conceptual clarity and methodological power, organized around several common principles. The manuals offered extensive accounts of these common principles, as well as discussions of the different ways in which they were applied by the various systems. For example, an early section of Le Blond's *Éléments* was entitled "Maximes ou Principes de la Fortification" (Le Blond 1756:39–48). There were variations in both the number and the formulations of these basic principles in the manuals. However, perhaps the most commonly cited basic principles were:

- the principle of commanding heights;
- the principle of flanking defense;
- the principle of defense in depth; and
- the principle of adaptation to local conditions.

These principles provided the standards against which Franquet evaluated the fortifications in French Canada. Franquet consistently found that the fortifications of New France fell short of meeting one or more of these basic standards, at least as they were applied in the context of European warfare. His findings illuminate a great deal about the context in which the fortifications

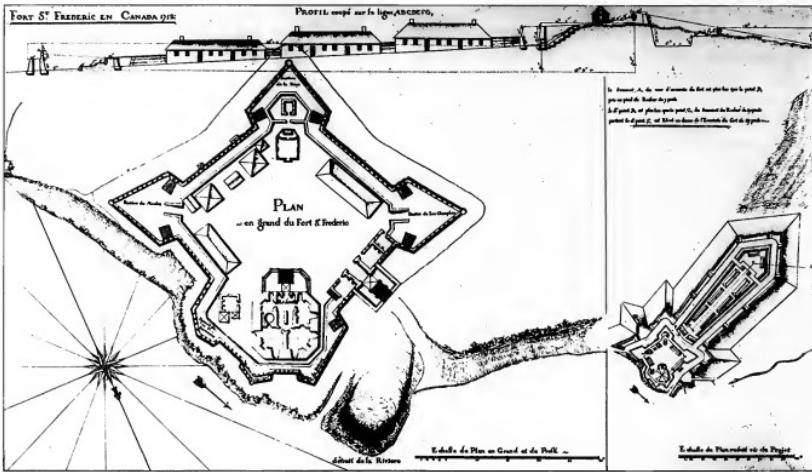
were designed and constructed. It is therefore worthwhile to review these basic principles briefly.

On the basis of the obvious fact that "high positions command lower positions," the manuals prescribed that the ramparts of a fortification "ought to command the countryside all around within the range of cannon" (Le Blond 1756:43; Rothrock 1968:157). The military engineer had to be familiar both with the features of the land on which he would actually construct his fortifications, and with the surrounding territory from which an enemy might conduct his siege operations. In particular, the engineer should strive to avoid situations in which higher ground commanded any part of his fortification. If such a situation could not be avoided, perhaps because of the situation of a town that was the focus of the fortification, the engineer should take measures to deny the advantages of the commanding ground to a besieger. Engineering manuals distinguished situations in which the commanding ground overlooked a fortification from the front, the side, and the rear (*de front*, *d'enfilade*, and *de revers*, respectively). Thus, Franquet's report on Fort St. Frédéric takes note of a commanding height "27 feet higher at a distance of 99 toises," that exposed the fortification from the rear (*de revers*), and recommends that an advanced work be placed on this height to prevent its use by an enemy (Franquet 1889:164). (Franquet's plan of Fort St. Frédéric, illustrating this weakness and his proposals to address it, is reproduced as Figure 1.2.)

The principle of flanking defense dictated the basic layout of fortifications. Le Blond expressed the principle in this way:

It is necessary that there is no part of a circuit wall [*enceinte*] of a fortified place which is not seen and defended from some other part of this circuit wall, that is to say, that they ought to flank each other reciprocally [*se flanquer réciproquement*]. (Le Blond 1756:39–40 [translation by author])

This principle derived from the observation that weakness existed wherever an enemy could attack a part of a fortification without being exposed to fire from defenders stationed elsewhere. Thus the principle of flanking required that every part of a fortification should be able to receive covering fire from at least one other part, so that an enemy could not become established with impunity anywhere in the fortification. This principle of flanking defense dictated an emphasis on applied geometry to identify designs in which the parts "flank each other reciprocally." For example, the most widely known English-language work, John Muller's *Treatise Containing the Elementary Part of Fortification, Regular and Irregular*, begins with a section entitled "Of Practical Geometry" (Muller 1746:1–18). The practical



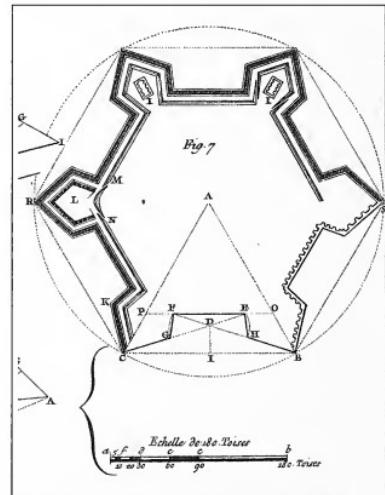
**Figure 1.2.** Franquet's plan of Fort St. Frédéric.

Used with permission of the Ministère de la Défense, France, Service historique de la Défense, Vincennes (Bibliothèque du génie, in Folio 210e, Franquet (Louis), Plan de Fort Saint-Frédéric en Canada). Reproduction provided by the National Archives of Canada (NMC 0019501).

application of this principle in the eighteenth century was the use of bastions along the main defensive wall, at intervals dictated by the range of the musket, as strong points from which all segments of the wall could be defended (Le Blond 1756:40–42, 325). So prominent were bastions in the defensive structures of this period that the methods taught and practiced by military professionals of that era are often referred to as “bastioned systems” (Fry 1984:I:23). (Figure 1.3 illustrates a basic design of a symmetrical, or regular, bastioned fortification with adequate flanking.)

For the most part, Franquet found that the existing flanking defenses at these fortifications were adequate. At Fort St. Frédéric, the “circuit wall is composed of six bastions, flanked in all its parts” (Franquet 1889:164; Franquet's plan of Fort St. Frédéric is reproduced as Figure 1.2). Fort Chamby was “a perfect square with 4 bastions, of 28 toises on the exterior side. The curtain walls are 17 toises, the flanks 9 feet, and the faces [of the bastions] 5 toises, 3 feet.” (Franquet's plan of Fort Chamby is reproduced as Figure 1.4.) Franquet did not specifically state that the flanking defense at Chamby was adequate, but his report also calls it “the best [fort] that we have in Canada,” a highly unlikely designation if he had identified any significant flanking issues there (Franquet 1889:169–70).

At Montréal, however, Franquet identified some weaknesses in the flanking defense. As the plans indicate,



**Figure 1.3.** An example of a symmetrical, or regular, bastioned fortification.  
(Le Blond, 1756:Plate 3).

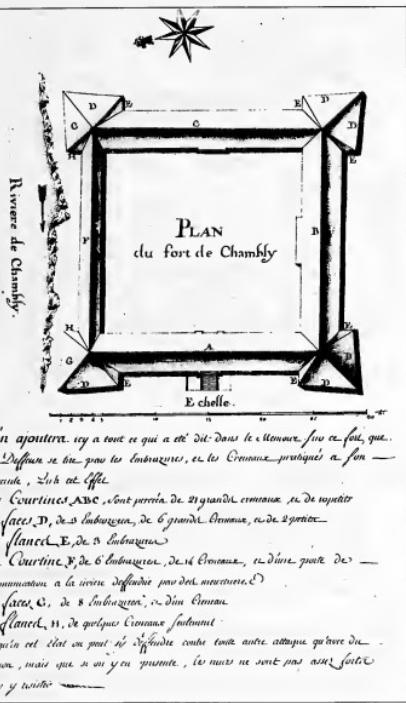


Figure 1.4. Franquet's plan of Fort Chamby.

Used with permission of the Ministère de la Défense, France, Service historique de la Défense, Vincennes (Bibliothèque du génie, in Folio 210e, Franquet (Louis). Plan de Fort de Chamby). Reproduction provided by the National Archives of Canada (NMC 0002052).

Montréal was a more asymmetrical, or irregular, fortification than Fort Chamby or Fort St. Frédéric. (Franquet's plan of Montréal is reproduced as Figure 1.5.) Chamby was a regular, almost perfect square. At Fort St. Frédéric, three fronts were fairly regular, while the fourth side was irregular to incorporate the redoubt within the walls and to accommodate the contours of the lakeshore. Montréal's irregularities were due in part to its position along the riverfront, which accounts for the elongated outline of the town, and hence of the wall erected around it. Due in part to design features intended to accommodate this irregularity, some of the bastions at Montréal were not properly laid out for adequate flanking: "inspection of the plan reveals that

its flanks are too small, the flanked angles too open, and that the section between the gate Y of the fort and the flanked angle of bastion 6 is not seen from any part" (Franquet 1889:117). The wide angles and short flanks rendered the flanking defense generally weak at Montréal, but the problem was especially acute in one section along the riverfront, which could not be seen, and therefore could not be flanked, from any other part. The angles formed by the faces of two bastions along the riverfront were so wide that it was difficult to see the flanks and faces of the neighboring bastions, or the stretch of curtain wall running between these bastions. It was therefore also difficult to deliver flanking fire on other sections of the wall from the faces of the bastions, or to bring flanking fire to bear on those faces from other locations. (The section to which Franquet referred can be located in Figure 1.5. It begins on the right face of the second bastion from the right [the very wide bastion] along the riverfront, and runs to the point of the next bastion to the right.)

Strictly speaking, however, it was not the use of bastions to provide flanking that distinguished eighteenth-century military engineering. The value of projecting bastions in covering fortress walls was known even in the ancient world, and the medieval castle featured projecting towers for this purpose. Rather, fortifications of the seventeenth and eighteenth century were distinguished by defense in depth, which meant the use of a particular type of bastion in conjunction with other features designed to provide sufficient protection against artillery. During the medieval period prior to the development of powerful artillery, it was the height of walls and towers that rendered fortifications strong and secure. By the early modern period, however, high towers and walls became vulnerable to breaching by concentrated bombardment, even with the inaccurate artillery of the era. Thus fortifications of the seventeenth and eighteenth century "continued to use many of the elements of medieval defenses but covered against artillery fire by dropping the entire complex into a hole in the ground." The *depth* rather than the *height* of defensive structures became the basis for strength and security against the kind of attack that besiegers could mount with artillery. Low, thick structures provided defensive strength by reducing and even hiding the potential targets of a besieger's artillery. The structures that did remain visible were designed to be thick enough to absorb artillery fire (Rothrock 1968:4). Thus bastions were designed with angles sufficiently wide to allow great quantities of earth to be heaped up inside the walls to form deep ramparts. Curtain walls running between bastions consisted of low ramparts with deep ditches in front. These ditches posed a great obstacle to attacking infantry, who had to cross them under fire from the

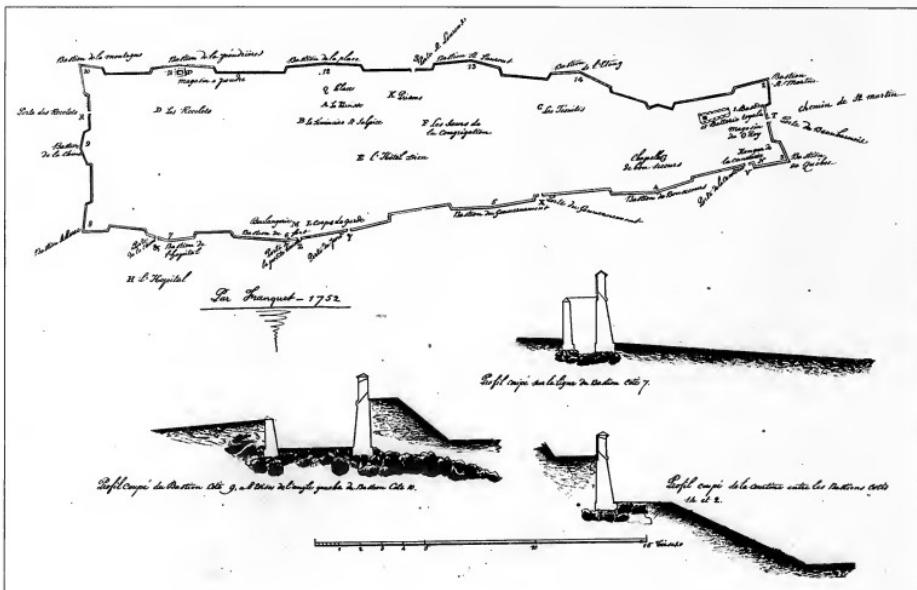


Figure 1.5. Franquet's plan of Montréal.

Used with permission of the Ministère de la Défense, France, Service historique de la Défense, Vincennes (Bibliothèque du génie, in Folio 210e, Franquet (Louis), Plan de l'enceinte de la ville de Montréal). Reproduction provided by the National Archives of Canada (NMC 1490).

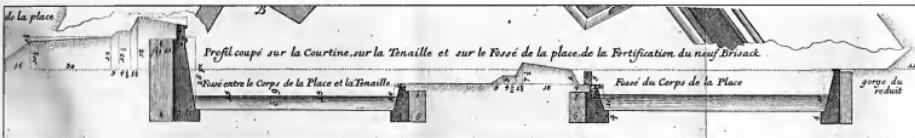
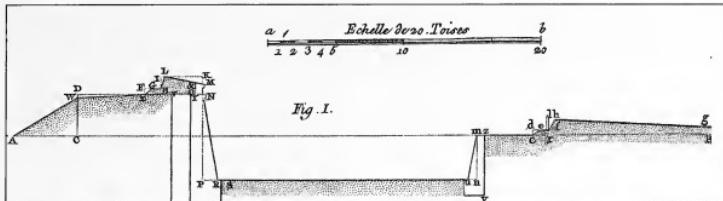
walls and bastions towering above the level of the ditch. To protect the wall from artillery fire, the earth from the excavation of the ditch was piled on its outer side, and the pile was then tapered down to the surrounding countryside. This embankment, called the glacis, not only restricted the targets available to artillery fire, but also required besiegers to approach by trenching and mining in order to avoid marching straight up into the defenders' line of fire. In addition, a wide variety of outer works, such as tenailles, lunettes, and ravelins, were employed to assist in concealing the inner works from artillery fire and to serve as obstacles that attacking infantry had to overcome in order to reach the main body of the place (Le Blond 1756:149–187). (Figure 1.6 shows two examples of designs to provide defense in depth: a simple design with curtain wall, ditch, and glacis, and a more complex design involving works exterior to the circuit wall.)

However, the manuals generally did not view these maxims as inflexible rules to be applied by rote in every situation. In fact, they often cited a principle of adapta-

tion to local conditions as an essential qualification on the operation of all the other general principles. As Abbé Deidier, a prominent commentator on the "system" of Vauban, noted:

It is difficult, in practice, to observe with rigor each of these maxims in particular: ... the secret consists in knowing how to discern what is suitable in the circumstances, and to arrange things in such a manner that the fortification does not considerably transgress against the principal maxims. (Deidier 1734:19 [translation by author])

Other writers distinguished between the theoretical and practical aspects of the engineer's art. Thus Le Blond, among others, treated both regular fortification, which represented the application of ideal principles at the draftsman's table, and irregular fortification, which adapted the ideal principles to real terrain, abandoning the perfect symmetry of theory (Bélidor 1755:135; Le Blond 1756:61,404). Fortifications designed to these standards in Europe were supposed to be able to withstand



**Figure 1.6.** Two examples of designs to provide defense in depth.  
(Le Blond 1756:Plate 7 (top). Bélidor 1729:Plate 53, Figure 6).

a siege of several weeks' to several months' duration by numerically superior forces furnished with heavy artillery and siege equipment (Rothrock 1968:140–141). Le Blond in fact defined fortification as “the art of arranging all the parts of a place ... so that the men who are contained there can defend themselves and resist for a long time a greater number of attackers who want to seize the place or to drive them from it” (Le Blond 1756:1–2 [translation by author]). The manuals sometimes emphasized that the capacity of a fortification “to resist for a long time” was relative to the type and extent of the force that could be brought to bear in besieging it. In his *Encyclopédie* article on fortification, Le Blond noted that:

Fortifications are of different types, that it is to say that they are relative ... to the machines with which they can be attacked ... Thus, if places are to be attacked only with the musket, simple walls are sufficient fortification to resist ... A castle, for example, is fortified when it is surrounded by ditches and simple walls, which put it in a condition to resist a party which has no cannon at all; but this same castle becomes defenseless against an army equipped with artillery, because it can then be destroyed without those who are inside being able to do anything to prevent it. (Le Blond, 1757:191 [translation by author])

In a world without artillery, a castle would suffice, and by implication, the elaborate designs and deep features of bastioned fortification would be an unnecessary investment. In the very different context of the New World, Franquet found fortifications that often

dispensed with features that were necessary to resist artillery effectively. In particular, most fortifications were not designed to withstand sieges conducted with large amounts of heavy artillery. Fort Chambly, Fort St. Frédéric, and even Montréal were considered too remote to be likely targets of European-style sieges. In the later stages of the Seven Years' War, Montcalm's aide-de-camp, Louis Louis-Antoine Bougainville, noted the different manner in which war had been conducted in North America:

They never made war in Canada before 1755. To leave Montreal with a party, to go through the woods, to take a few scalps, to return at full speed once the blow was struck, that is what they called war, a campaign, success, victory .... (Bougainville 1964:252)

Since war was not conducted “in Canada as it is done in Europe” (Bougainville 1964:252), the defenses of the St. Lawrence and Richelieu valleys needed only to be able to resist colonial militia, frontiersmen, and Native Americans, not fully equipped European armies. Thus at Chambly, Franquet noted, the height and thickness of the walls were “more than sufficient to resist any attack other than with cannon” (Franquet 1889:86). Even so, “in the light of the difficulties which present themselves to the English in bringing some cannon there, it ought to be considered unassailable” (Franquet 1889:164). (Franquet's plan of Fort Chambly is reproduced as Figure 1.4.) At Montréal, the surrounding wall of the town, although “flanked in every part,” was “of feeble construction, and ... only able to resist against an attack undertaken by surprise or by scaling, and not at all

against any other [attack] with cannon" (Franquet 1889:117). (Franquet's plan of Montréal is reproduced as Figure 1.5.) Fort St. Frédéric was also "too feeble against artillery and stronger than necessary against musketry," so that it would "suffice against the Indians and even against any attack in strong force," and attackers would need "some cannon to take it" (Franquet 1889:163–164). (Franquet's plan of Fort St. Frédéric is reproduced as Figure 1.2.) The weaknesses due to the fort's poor design and location were exacerbated by poor construction and inadequate maintenance, which Franquet attributed to the colony's pervasive corruption. The fort's condition was so poor that, only six or seven years after the construction of the walls, they were "cracked and threatening to collapse into ruins" (Franquet 1889:75). Even at Québec, Canada's "chief place," Franquet could only affirm that "the circuit wall around the Upper Town ... is sufficient ... due to its height and the thickness of its walls, against the kind of attack that could be conducted there." As with the other fortifications in Canada, Franquet apparently did not contemplate an artillery siege at the colony's "principal establishment ... whose taking would bring about the loss of the entire country" (Franquet 1889:61,119,122–123, 201).

### MISSIONARIES, MERCHANTS, AND NATIVES: A CONTROVERSY

While the seventeenth- and eighteenth-century engineering manuals emphasized the theoretical aspects of fortifications and the ideal models of "regular fortification," actual fortifications were designed and constructed within existing contexts of geography and topography, as well as concrete social, political, economic, and cultural relationships. In colonial New France, the physical defenses were developed within a unique society defined by the complicated relationships among colonial officials, military officers, fur traders, commodity merchants, missionaries, and *habitants* settled in the farming communities along the St. Lawrence and Richelieu Rivers. There was considerable overlap among these groups: many colonial officials and officers were also fur traders or commodity merchants, and even some missionaries were accused of surreptitiously profiting from the fur trade and the contraband trade in goods from New York and New England. The *habitants* were the backbone of the colonial militia, and the colonial aristocracy (the *seigneurs*, holders of the major land concessions) provided a high proportion of the officers in the regular colonial troops (the *Troupe de la Marine*). Nor were these groups always characterized by cohesive interests. There were always factions among the colonial officials, and fissures

between the officers of the regular French army (including Franquet himself, and later Montcalm), the officer corps of the colonial regulars, and the colonial militia. While the missionaries were uniformly Roman Catholic, the Jesuits, Sulpicians, Recollets, and regular diocesan clergy all had different interests and divergent approaches to their mission activities. In addition to the departures from European norms that were due to the very different military and geographical conditions of the New World, other inadequacies in the fortifications of New France reflect the political, social, economic, and cultural realities of the colony. A case in point is the controversy surrounding the construction of fortifications at Sault St. Louis, a strategically located mission village inhabited by some of New France's most important Native allies.

Franquet's tour of fortifications took him not only to French towns and settlements but also to the Native American settlements of the St. Lawrence valley. The settlements that he visited were mission villages, the products of more than a century of proselytizing among the Iroquois, Abenakis, Hurons, and others by French Sulpicians, Recollets, and Jesuits. (All these villages still exist in Québec Province, and are inhabited by descendants of the bands that Franquet met.) Over the course of the seventeenth century, the missionaries developed these settlements as places where Native converts could receive Christian instruction without interference from the native opponents of Catholic Christianity. Sault St. Louis was a refuge for the Francophiles and Catholic converts of the Iroquois League, who had found it impossible to reach accommodation with their anti-Catholic and Anglophilic adversaries within the League. These settlements had the additional advantage of isolating the neophytes from the less than exemplary models of many French *habitants* and traders, and especially from the tendency of the French to provide brandy freely to the Indians, often with a view to gaining advantage from the inebriated Indians in the trade for furs. Thus at St. François, a wampum belt was displayed in the mission church as a "guarantee of the inviolable oath that they have made never to drink brandy in the village" (Franquet 1889:95). The mission villages also served as refuges to which the Indians could flee from the dislocations that afflicted their societies in the era of European expansion. The Hurons at Lorette were refugees from the Iroquois' destruction of their homeland in 1649. Likewise, the Abenakis of St. François and Bécancour had been displaced by the encroachment of English settlements on their northern New England homelands (Axtell 1985; Richter 1992; Charland 1964; Trigger 1976).

Franquet's exposure to Native American society, except for brief encounters with nomadic Montagnais and vagabond Algonquins, was thus restricted to

groups that had long been allies of New France, had accepted French Catholicism, and were displaying signs of acculturation to French life. At Sault St. Louis, he reported that the Iroquois "have a taste for building houses in the French style, of square frame, and even of masonry" (Franquet 1889:38). At Lorette near Québec, the Hurons sang Catholic hymns in their own language "with a rhythm and precision that could be acquired in Europe only by long practice in music." The women of Lorette wore their hair "in imitation of the tresses or queues of the Europeans," and the men drove horse-drawn carts full of produce into town in order to trade for the same commodities valued by their European neighbors (Franquet 1889:104–105, 107). The settlements were integrated into world-wide trading network, not only exchanging furs for European goods, but also gathering ginseng in the woods for trade with China (Franquet 1889:95, 99, 177–178). They collaborated with French merchants (sometimes with the apparent complicity of their missionaries) in the contraband trade with New England and New York (Franquet 1889:47, 120).

Still, the Native American inhabitants of the mission villages retained many of their former customs. As a representative of the French King, sent "to assess the strength" of the walls around their villages, Franquet was treated as a distinguished guest with the full panoply of traditional ceremony. There were conferences conducted according to the elaborate protocol of Northeastern woodlands diplomacy, which featured lengthy formal orations employing a complex symbolic vocabulary. There were great feasts and ceremonial dances. Franquet's hosts treated him with the greatest courtesy. At Sault St. Louis, their "best orator, addressed me for a long time . . . saying that, considering me as one of the chiefs of the French, he came to convey the joy that they had in seeing me among them, that they thanked God for having preserved me from all the danger in the long voyage that I had made" (Franquet 1889:35–36).

The journal also exhibits the delicate, even difficult nature of the relationship between the French and their Native allies. Like many French officers, Franquet regretted the necessity of having such allies, and even regarded them as a potential danger to New France (Bougainville 1964:149, 170). He expresses doubts both about the sincerity of their conversions and about the strength of their attachment to New France (Franquet 1889:37, 106–107). By the time of Franquet's visit, the mission Indians at Kahnawake or Sault St. Louis had been allies of the French for decades. The mission had been located for over 80 years at several sites on the south banks of the St. Lawrence River near Montréal. The mission village settled at Sault St. Louis (present-

day La Chine Rapids) in 1677. (The name "Kahnawake" refers to the site: "at the rapids" [Fenton and Tooker 1978:479].) The population was Christian Iroquois, predominantly Mohawks, and the Jesuits erected a stone church with an attached rectory to minister to the community. For decades, the mission settlement was open, without any permanent defenses. A drawing from a few decades before Franquet's visit shows the village of traditional Iroquois longhouses along the river with an adjacent European quarter, consisting then of church, rectory, and storehouses (Blanchard 1980; Demos 1992:145, 284, n. 8; Fenton and Tooker 1978:470). The detail in this drawing is remarkable: it shows both foot traffic in the village and various boats moving along the shores of the St. Lawrence, a vivid depiction of a high level of coming and going that corresponds well with Franquet's observations about life in the village. (This drawing is reproduced as Figure 1.7.) Franquet's own plan, based on his 1752 inspection, plainly shows the same settlement pattern of several rows of Iroquois dwellings along the river with the neighboring European compound. (This plan is reproduced as Figure 1.8.) However, there is an obvious addition in Franquet's plan: it shows walls around both the native village and the European settlement, which itself had grown with the addition of a house inhabited by French merchants, as well as a guard house, stable, and storehouse for a garrison of French troops. But Franquet's own notation on the plan indicates that these walls were incomplete: "Note: the two sides of the fort marked in yellow are not at all completed (*executés*), nor is the part of the circuit wall around the village running along the river." Therein lies the controversy which Franquet recounts.

Franquet's formal report on his inspection describes the origins of the fortification plan and the controversy that had engulfed the mission by the time he arrived:

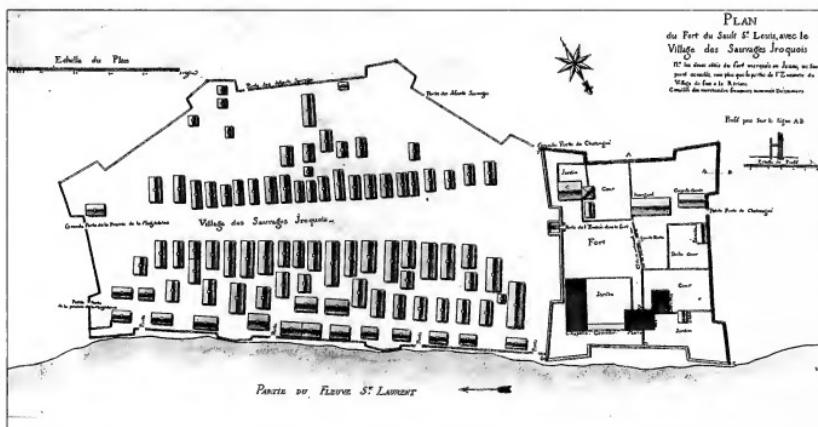
During the last war, considering the advanced position of this village and the relationship that the Indians maintain with the nations from which they have separated, we adopted the plan of constructing a square fort . . . capable of defending against any kind of attack other than with cannon. (Franquet 1889:119)

The plan was actually to fortify the settlement in two parts. The first part was the square fort, "a masonry circuit wall," around the French compound, with corner bastions to provide appropriate flanking fire. The masonry wall was to enclose the church, Jesuit residence, merchants' house, stables, and guard house. The wall was "pierced with loopholes, and with a raised firing platform behind it" for the defenders (Franquet 1889:119). As Franquet indicates (and as is evident from his plan), this wall was certainly not designed to with-



**Figure 1.7.** A drawing of Sault St. Louis, near Montréal.

Bibliothèque nationale de France, *Vue de la Mission du Sault St Louis*.



**Figure 1.8.** Franquet's plan of Sault St. Louis.

Used with permission of the Ministère de la Défense, France, Service historique de la Défense, Vincennes (Bibliothèque du génie, in Folio 210e, Franquet (Lcuis), Plan de Fort du Sault St. Louis, avec le Village des Sauvages Iroquois). Reproduction provided by the National Archives of Canada (NMC 0042963).

stand artillery, but it would have provided even a small garrison with a strong defense against the muskets of native warriors or colonial militia. However, in 1752 this wall was only half-finished: it did not run along the

river or the adjacent Iroquois village. Franquet reports that, at the same time, the Iroquois had requested "a circuit wall of stakes around the village. We agreed to this and began work on it." This wall was also unfinished at

the time of Franquet's visit: when "it came to running the wall along the river, they [the Iroquois] did not want to allow it, so that today the village is not enclosed." The Iroquois had also objected to completing the masonry wall, "saying that they were suspicious of us . . . and that [the wall] would distress them and subject them to our will." As a result, not only was the village undefended, ". . . the masonry works are a complete loss," and "the post could be taken by storm by the enemy nations, or even by the resident Indians, if their interests lead them to break with us" (Franquet 1889:119–120). The impasse was the result of complex relationships between the French officers, resident French merchants, the Jesuit missionaries, and the native inhabitants of the village. As Franquet relates it, each group had a different stake in the issue about the fortifications.

According to Franquet, the resident French merchants, sisters named Désaulnier (Desaunier in some other sources), were conducting an extensive trade in "prohibited merchandise" (Franquet 1889:120). The Iroquois also had a stake in this illicit trade:

The Indians of this village are rich . . . dressed in good material and in lace of gold and silver that they get most commonly from New England, where the English, with a view to winning their trust and friendship, sell to them on better terms than [they receive] among us. (Franquet 1889:38)

Franquet apparently believed reports that the Iroquois conducted much of the contraband trade for the merchants with their relatives in "the nations from which they have separated" (Franquet 1889:119). This trade would be "hindered by an enclosure around the perimeter of the village," which would obviously interfere with clandestine comings and goings. Therefore, according to Franquet, the Désaulniers provoked the Iroquois to object to the completion of the village wall on the "frivolous pretext" that it would prevent their "freedom of entering and leaving under all circumstances" (Franquet 1889:120). Of course, in light of the canoes and boats along the river so vividly depicted in the drawing we discussed earlier, one has to wonder how frivolous the Iroquois would have considered this argument to be. Aspects of this story are found in several other sources. The Désaulniers had been in the village for many years (since 1726), and the accusations of engaging in illegal trade went back more than a decade. By the time of Franquet's visit, their store had been closed and reopened once, and they had recently been banished altogether from the village. In August of 1752, when Franquet was there, they actually appear to have been in France appealing their banishment to higher authorities (O'Callaghan 1856–58:IX:1071, 1096–1097; Rochemonteix 1906:2:30–50, 245–258). No

other source of which I am aware indicates that completion of the fortifications at the village became embroiled in this older controversy. There may be accounts in the French archives, in reports of the colonial authorities to the French Crown, but these accounts are not reproduced in any of the printed collections of documents from New France. (e.g., Blanchet 1883; Casgrain 1889–1895)

The Jesuit missionaries also opposed completion of the fortifications. Franquet asserted that this was because they wished to maintain "the authority which they seem to possess today" (Franquet 1889:119). They perceived that "the more resistance the post is capable of, the more that it would counteract their authority." (Franquet even accused them of withholding important information from the authorities, to the extent of treating the village census like a military secret to be kept from the military itself.) Moreover, the enclosure of their church and residence "would subject them to too much scrutiny and hinder them in the conduct of their spiritual work" (Franquet 1889:119–120). Franquet insinuates that the Jesuits also had a stake in the illegal trade: "the Iroquois make some presents of furs to the church; these presents are sufficient to provide for the maintenance of the church and of its ornaments" (Franquet 1889:37), and he rather coyly observes that the Jesuits, as seigneurs of the village, were generally attentive to "their profit in this capacity" (Franquet 1889:38–39). Accusations that the Jesuits were complicit in the merchants' illegal trade certainly swirled around *l'affaire Désaulnier* (Rochemonteix 1906:2:30–50, 245–258). In any case, Franquet contends that the priests also counseled the Indians to "rise up against the completion of the fort" (Franquet 1889:120).

In response, Franquet advised addressing the following line of argument (possibly representing the official view of the French colonial officials) to win the Iroquois over to completion of the fortifications:

My advice would be to represent to these Indians that His Majesty, having their security at heart, has adopted the plan of enclosing their village with a palisade of wooden stakes in order to make them secure from their enemies, that as long as the side along the riverfront remains open, they would be vulnerable to any assault by their enemies, that moreover the [stone] fort would be a secure refuge for their women, children, their most precious possessions, and for themselves if they had to withdraw there after having made the last efforts in defense of the village, and that finally, all these works ought to be a testimony to the confidence that His Majesty has in their loyalty; hence, that they ought to concur in their completion. (Franquet 1889:120)

This line of argument was conspicuously addressed to the root issue: suspicion among the Iroquois of the mission village that the fortifications were really intended to subject them to greater control by the French authorities. As presented by Franquet, the arguments of both the merchants and the Jesuits were directed to the village residents, and played off this suspicion. Franquet's response was that the French authorities and military personnel were motivated solely by the best interests, especially the safety, of the village residents. Were the Iroquois suspicions correct? Was Franquet's response to these suspicions fully candid and entirely sincere?

There is, again, no evidence on this specific controversy in other widely available sources on New France, aside from the dimension represented by the long-running Désaulnier controversy. But some of Franquet's own statements in his journals and reports suggest that the Iroquois did correctly perceive, at least in part, what motivated the French to adopt the plans to fortify Sault St. Louis. At Sault St. Louis, he notes the close relationship that the village residents maintain with their Iroquois relatives, and observes that, in case their relatives should go to war with France, the interests of the Kahnawake community could "lead them to separate themselves from us" (Franquet 1889:120). He acknowledges that one reason to settle Native Americans in the reserves is to guard against their possible treachery. Of a settlement for the vagabond Algonquins, he says, "I am of the opinion that we cannot too much attract the Indians to our vicinity. This . . . would enable us more easily to be informed of the enterprises that they might be able to contrive" (Franquet 1889:24).

At another mission village, the Sulpician settlement for Iroquois, Nipissings, and Algonquins at the Lake of the Two Mountains, Franquet proposed considerable improvements to the rather amateurish fortifications that he found there. In his formal report, he lists several reasons for improving the fortifications. "Some of these reasons," he admits, "seem to be in the interest of the Indians, and the others in the interest of the service" (Franquet 1889:123). He states the reasons that are in the interest of the Indians in this way:

. . . supposing the Indians to act, in the circumstances of a war, in concert with us, they go far and wide to scout the movements of the enemy, and that in case of being perceived and followed, it would be advantageous for them to fall back to an assured refuge. Moreover, if their village is found to be surrounded by a well-flanked enclosure of large stakes, their women, their children will have refuge from all sorts of surprise attacks. (Franquet 1889:123)

The other reasons, those that are in the interests of the service, derive from the regular communication and

good relations that each group maintains with their relatives who have not settled in a mission village: "these Indians always maintain with the nations from which they originate many ties and much communication." As at the Algonquin settlement, it is important to keep a close watch on their activities: "it is thus good to observe them closely" (Franquet 1889:123). Perhaps influenced by the controversy he had learned about at Sault St. Louis just the day before his inspection at the Lake of the Two Mountains, Franquet rehearses the arguments that could be directed to the village residents if they resist proposals to expand and improve the fortifications at the village. Franquet candidly acknowledges that it is important to avoid any hint of the suspicions that he has just expressed, and instead to soothe the natives with assurances of the King's concern for their interests:

. . . without indicating the least suspicion, it is necessary on the contrary to make them perceive that His Majesty has so much confidence in them and takes their interest so much to heart, that he has supported them with a post of these troops, and that if he keeps them enclosed in a fort, it is with a view to putting up the greatest resistance in their interest. (Franquet 1889:123-124)

However, if such reassurances are not persuasive, Franquet recommends an appeal to loyalty, which may also convey an implied threat:

If, however, we perceive that this fort gives them umbrage, and that they make representations to remove it, we would only have to reply to them that if they are truly attached to the King, they would only be able to approve these measures that His Majesty takes in their defense, and that by opposing it, they give us suspicions of their loyalty. (Franquet 1889:123-124)

In the New World, the French alliance with the mission Indians and other native groups was often uneasy, due largely to different understandings about the basic terms of their accord. Denys Delâge, a historian of the French-Indian alliances, notes that both parties employed a diplomatic language in which the French governor was designated metaphorically as the father, and the natives "occupied the position of infants." However, in the matrilineal Iroquois society, "the father played the role of protector and provider," but was "deprived of authority over his biological children." The native residents of the mission settlements thus acknowledged the French governor to have a "status equivalent to that of a chief in their own society, that is to say, a leader deprived of the power of coercion but capable of forging consensus and of displaying generosity in redistributing riches." The French, on the

other hand, sought to impose the "patrilineal paradigm," in which the governor-father was "endowed with authority and the children [were] subjects." Although they were "forced to ally themselves with the Amerindians because they needed to do so," the French "sought also to conquer them" (Delâge 1991:64–65 [translation by author]). In the eyes of the Indians, the French were allies who were also potential usurpers of an authority that they did not rightly possess. To the French, the Indians were allies who were often unruly children, even potential rebels and traitors, against the proper authority of the French King. This dynamic is certainly evident in the controversy over fortifications at Sault St. Louis, at least as Franquet represents it.

In the Old World, fortifications often included a feature that was designed simultaneously for siege defense and population control: the citadel. Citadels were strongholds, usually located on the high point of a town, that could provide a last line of defense for a garrison during a siege and a means to resist threats to the monarch's sovereignty among the local population. Le Blond defined a citadel as a "specific place within a fortress, fortified as much against the town as against the countryside, and whose purpose is to keep the inhabitants of the town within their duty and to prevent them from rebelling" (Le Blond 1756:398 [translation by author]). (A very similar definition is in Bélidor's engineering dictionary [Bélidor 1755:66].) Garrisons stationed in citadels were often intended not only to resist invasion and siege but also to ensure domestic tranquility. The stone fort at Kahnawake was certainly not a citadel in the classic European sense. Like other features of fortification design, it was adapted to conditions in North America in which artillery sieges were unlikely. However, the stone fort at Kahnawake was still designed, as citadels were in Europe, to be "fortified as much against the town as against the countryside." As Franquet had noted, the incomplete stone fort "could be taken by storm by the enemy nations, or even by the resident Indians, if their interests lead them to break with us." Like a European citadel, then, the completed stone fort was intended to defend against the "enemy nations," and also the "resident Indians" if their alliance with the French broke down. (Franquet 1889:120). This feature of the stone fort was apparently not lost on the native residents themselves, and Franquet demonstrates how recognition of this aspect of the proposed stone fort exacerbated the existing tensions and mutual suspicions between the French authorities and their native allies in the mission village.

Franquet's comments about two other mission villages may also provide some indirect corroboration for this reading of the controversy over the fortifications at Sault St. Louis. Despite his general attitude of skepticism about the value of New France's Indian alliances,

Franquet identified two groups as reliable allies: the Abenakis of St. François and the Hurons of Lorette. He reports that the Abenakis "are considered to be the most attached to the King" (Franquet 1889:175). And the Hurons "are partisans of the French, having given proofs of it, so that, only after the Abenakis, they are the only people on whom we can appropriately count" (Franquet 1889:107). These assessments may be all the more significant since he does acknowledge some minor tensions even with these groups. During a formal visit to the Lorette mission, the governor general himself was compelled to refrain, on the advice of the Jesuit missionary, from mentioning "some small reproaches," lest the Hurons be alienated by the violation of ceremonial protocol (Franquet 1889:106). In the light of Franquet's comments about the reliability of these native allies, it is perhaps not entirely coincidental there were no fortifications at their villages. Strikingly, Franquet also made no recommendations for fortifying them. It may be that the absence of fortifications reflected the judgment that these villages were not vulnerable to attack. However, Lorette was just a few miles from Québec, where Franquet recommended substantial additions and improvements to what were already fairly extensive fortifications (if only by North American, not European, standards). The St. François mission village had been fortified with a wooden palisade at an earlier location vulnerable to spring flooding along the St. François River, but there was no attempt to enclose the village when it was relocated to a higher site along the river (Charland 1964:25–30). The relocated St. François famously proved to be vulnerable to attack: whether a stockade at the village could have prevented the destruction inflicted by Rogers' Rangers in 1759, just seven years after Franquet's visit, is anyone's guess.

## SOLDIERS, OFFICIALS, AND HABITANTS

Of course, tensions with Native American allies and the condition of static defenses were not the only weaknesses of New France. The journal documents at least two others. Franquet describes an officer corps that suffered from poor morale and exhibited little dedication to its profession. At Fort St. Frédéric, the officers were at odds over the effort of the commandant's wife to exercise a monopoly in commerce: "she wanted the exclusive privilege of buying and selling everything," and "engaged her husband to prohibit" the other officers from conducting any trade. The other officers were keen to conduct their own businesses, and "revolted by [the commandant's] despotism, said that the commandant was not at all competent to prohibit them from the trade of any merchandise whatsoever." The commandant in turn complained that some of his officers "did not see

either him or his family at all" (Franquet 1889:67). Officers generally maneuvered and schemed for appointments to the most important fur trade posts. There they devoted their main effort to exploiting the Indians' craving for brandy to trade for furs, "on which they gain at least one hundred percent" (Franquet 1889:29). The result was arrogance on the part of the officers who became rich, envy among those who did not, and neglect of duty on the part of all: "an officer in this country does not lend himself to the interests of the King or of the service, to the degree that his own particular good is involved" (Franquet 1889:30, 67–68).

Corruption thrived in the colony: the poor workmanship at Fort St. Frédéric was a consequence of "the fraud that is carried on in everything which concerns the expenses of the service, and of the system which is practiced in this country that one is able to cheat the King with impunity with a view to enriching oneself" (Franquet 1889:75). While maintenance and repairs were neglected at the forts, the colonial government's resources were squandered on the lavish life of its high officials. *Intendant* Bigot, who was notorious for conspicuous corruption, traveled in midwinter with a retinue of 15 people, along with a full complement of ceremonial guards, cooks, stewards, and servants. The baggage train included "everything which would be useful and conducive for comfortably lodging and setting a daily table for 20 to 24 persons" (Franquet 1889:130). The cost for horses, sleighs, and drivers, as well as the food and lodging of the entire company, was at the expense of the King. "Nothing is spared in this country, when the chiefs of the colony contemplate some journey . . . All are paid liberally, and as they are the trustees of the funds, they are not at all careful of the expenses" (Franquet 1889:146). There was widespread suspicion, only too well founded, that officials protected, and profited from, illegal trade in agricultural commodities while the population regularly suffered from food shortages (Franquet 1889:179–181). Although Franquet denounced the widespread corruption and pleaded for reform of colonial finance and administration, he never criticized the corrupt Bigot by name. In fact, he often seemed charmed by the *intendant*, who had placed his own boat at Franquet's disposal and included the engineer in his official retinue for the midwinter excursion. In the journal, Franquet praises Bigot as "a man of high status, with a regard for all the people of which few are capable," and goes so far as to contrast the intendant's lavish entertainments favorably with the governor general's aloofness from the colony's social life (Franquet 1889:147–148).

While official misconduct often scandalized Franquet, Canadian society alternately infuriated, astonished, and mystified him. The journal describes affluence far sur-

passing the condition of comparable classes in France. Even the humble people of the countryside had enough horses not only for work in the fields but also for the leisure activities of the young men, promenading and courting their mistresses (Franquet 1889:26–27). The young daughters of *habitants* received an education that inspired in them aspirations which would "divert them from the work of their fathers." Education made the daughter of a *habitant* "mannered." Indeed, an educated girl came to regard "the condition in which she was born as beneath her. She thus wants to make a marriage arrangement in town, and for this she needs a merchant" (Franquet 1889:31–32).

It is not surprising that people who valued social mobility would not retain Old World habits of deference toward social superiors. In fact, Franquet found ordinary Canadians downright insolent. "Canadians of the common estate," he wrote, "are unmanageable, stubborn, and do nothing except by their will and whim" (Franquet 1889:103). Even girls of 15 and 16 displayed an extraordinary self-possession in social situations with high officials and their courtiers. At the home of the *curé* of Pointe St. Claire, the governor general, intendant, and the officers of their party engaged in flirtatious behavior toward the girls of the village, clearly expecting to provoke flustered and embarrassed reactions. But "all of us were quite surprised to perceive that these children took our heads . . . between their hands and applied a kiss. And where? On the lips." Education, again, was the source of this outrageous conduct (Franquet 1889:149). Understanding of the new society finally began to dawn in Franquet when a blizzard detained him in the home of "a man of 68 years, still sharp, lively, and full of good sense. I had to recognize, from the different arguments that he held up for me, that the Canadians need to be led with kindness and to be a little flattered." Authority had to be exercised over such people only by gentle persuasion and an amiable demeanor, not by displays of authority and threats of punishment. "He put before me in this regard the character of Mr. de Vaudreuil," who "knew how to captivate hearts with the most affable manners." Franquet finally had to concede that "we cannot give too much attention to the choice that we make of the general in this country" (Franquet 1889:162).

Franquet was quite certain about the source of everything that troubled him about Canadian society. It was the lure of commerce, especially the hope of quick riches in the fur trade, that corrupted officials and diverted military officers from their duty. (Franquet may have appreciated the lure of the fur trade all the more since he dabbled in it himself [Franquet 1889:159].) Commerce also drew *habitants* away from their proper station on the land: the children of *habitants*, "observing the profits that merchants make, prefer this profession

to that of cultivating the land" (Franquet 1889:153). Canada was far from realizing its potential: "It is astonishing that a country such as Canada . . . where the lands are good and produce a great deal without great improvement . . . is not in the condition to produce not only the subsistence of its own *habitants*, but further to furnish flour and other suitable products" for export (Franquet 1889:179). Franquet's observations crystallized into a plan to accelerate the country's agricultural development and, implicitly, to wean it from the commercialism in general and the fur trade in particular. He realized that the country's problems could never be solved under the regime of governors and intendants appointed by the crown, for such officials replicated the courtier culture from which they originated in Old France. The result was that they made policy only "relatively to their interests and to the interests of those who give them counsel, or who are their creatures" (Franquet 1889:196–197).

Franquet therefore proposed a radical change in the government of New France, by means of establishing a new bureau empowered to promote rural settlement and agricultural development. While the governor and *intendant* would be members of this new body, they would only have equal votes with the other members, so that the bureau would actually have the power to overrule even the governor and *intendant* in matters within its scope of authority. This bureau would compile detailed information on rural population, the amount of land under development and cultivation, and the types of crops planted each season. It would collect "contributions" from the *habitants* who were already established on their lands, and disburse these funds to support new *habitants* through the difficult first years of settlement, during which land had to be cleared and prepared for cultivation. It would have the power to fix the price of wheat at a level which would guarantee that "the *habitant* can come out of the transaction and agreeably compensate for all his effort and work" (Franquet 1889:190). To complement the reforms initiated by this bureau, the system for staffing the fur trade posts would be reformed to reduce the temptation of officers to place commerce over duty.

Although Franquet displayed the foresight to anticipate the eclipse of the fur trade by a highly developed agricultural economy in Canada, his own plans were an exercise in social stratification and hierarchical order. For in the name of rural settlement and agricultural development, Franquet would have confined *habitants* to the land and put an end to the social mobility that he had observed in Canadian society. His bureau would have the power to compel landless persons to settle and clear new land, and to oblige "*habitants* who would quit their lands in order . . . to apply themselves solely to

commerce, to fishing, to the hunt, or to seamanship . . . to return to their lands or to take new ones" (Franquet 1889:181). Even the daughters of *habitants* were to be denied the dream of marrying a merchant in town, by removing the sisters who instilled such ideas in them, forcing them "to be content with the instruction of their pastor in religion, and to adopt no principles which would divert them from the work of their father" (Franquet 1889:32) While Franquet's proposals might have contributed to more effective and less corrupt government, they would also have inhibited the incipient social dynamism—as reflected in the relative prosperity, independence, and social striving even among the *habitants* of the countryside—that Canadian society was beginning to display.

## AFTERMATH

During the final campaigns of the Seven Years' War in 1759 and 1760, just a few years after Franquet's inspections, Fort St. Frédéric, Fort Chambly, and Montréal did face European armies. In 1759, a British army under Jeffery Amherst advanced up Lake Champlain. Meanwhile, the British navy navigated down the St. Lawrence to bring James Wolfe's army to Québec. The goal was to overwhelm the defenses of French Canada by squeezing them between these two forces. Extending the remarks cited before, Louis-Antoine Bougainville noted the change in the way that war was now conducted in North America:

They never made war in Canada before 1755 . . . Now war is conducted here on the European basis. Projects for the campaign, for armies, for artillery, for sieges, for battles. It no longer is a matter of making a raid, but of conquering or being conquered. (Bougainville 1964:252)

During the winter of 1758–1759, Montcalm had dispatched Bougainville to report to the French court about conditions in New France. His reports included comments on fortifications, including many of those inspected by Franquet. Bougainville's evaluations of these forts were entirely consistent with Franquet's, although the much harsher terms that he employed may reflect the new situation in which European-style sieges were an imminent prospect. He reported to the court that only Fort Niagara, guarding the portage between Lakes Erie and Ontario, "could hold out more than three weeks" against a serious attack. "All these other dumps [*bicoques*] that are called forts are scarcely secure against a surprise attack." Fort St. Frédéric "is only a bad stone wall with an interior keep [*donjon*], commanded within musket range and in no condition

to withstand two discharges of cannon." Fort Chamblay "could not stop an enemy marching with only four pieces of cannon." Montréal and Québec were "no exceptions." Montréal was basically an "unfortified place," and even Québec was "not a strong place." Québec could not withstand a siege: "if an enemy appears once at the foot of its walls, it will be necessary to capitulate" (Bougainville 1924:9–10, 15, 27, 31).

The events of the last campaigns confirmed these evaluations. In the face of Amherst's advance, Fort St. Frédéric was abandoned after its imposing redoubt was blown up. At Québec, Montcalm arranged his defenses to keep the British army at a distance from the city, forcing Wolfe to spend weeks probing these defenses for an approach. When Wolfe surprised him by appearing on the Plains of Abraham outside the city's poorly fortified wall, Montcalm gave battle immediately. The town surrendered a few days after the defeat outside the walls. According to the standard modern account, the surrender was immediately motivated by a shortage of food, but the surviving French officers were also acutely aware of the inadequacy of the land defenses (Stacey 1959:28–33, 158). The next summer, Fort Chamblay was abandoned without a fight, and Montréal quickly surrendered as three British armies converged outside the walls of the town. In no case did the French put their fortifications to the test for which they had not been designed (Lambert 1992:38–40).

Meanwhile, the mission Indians of Sault St. Louis, the Lake of the Two Mountains, St. François, Bécancour, and Lorette fought with New France until the last days of the war. As Amherst advanced, the mission Indians entered negotiations for neutrality with the British Indian superintendent, Sir William Johnson. Indian fighters gradually drifted away from the remaining French forces, although some remained in the field with the French until the very end. James Murray, first governor general of British Canada, confirmed the rights of the mission Indians to trade, and to retain their customary practices and Catholic religion (MacCleod 1996:155–176).

After a trip to report to the French court in 1753, Franquet had returned to Louisbourg where he took up the position of director of fortifications, with the responsibility for preparing the fortress for the next war. His tenure at Louisbourg was controversial. There was a dispute with the governor over defensive strategy. The governor favored establishing a system of coastal redoubts in order to resist and repel an English landing. Franquet proposed elaborate plans of outer works around the main walls of the fortress in order to increase its strength against a regular siege (Fry 1984:II:77–85). Urgent repairs to the existing structures

were never carried out. Some contemporary observers accused him of lethargy in making the necessary preparations, which may have been due to a debilitating illness (McClellan 1918:197–198). A fellow officer at Louisbourg wrote that "the chief engineer was a man of war, loving good (all his actions were directed to that end), a gentleman and a good citizen; but unfortunately an illness which undermined his health had so weakened the body that the spirit of the man was lost, he had only moments" (Thorpe 1974:229–230).

In 1758, a British army under Jeffery Amherst executed a difficult amphibious landing and invested the fortress. The British artillery quickly inflicted severe damage on the dilapidated walls and bastions of the fort. Franquet was one of the last officers to hold out against the inevitable surrender as the British siege trenches approached and British guns threatened to breach the walls. After the surrender he was paroled to France, where he was forced to defend his conduct at Louisbourg against criticism that he had failed to make adequate preparations and to respond effectively to the British siege. He retired to his family's estate in Condé, and he died there in 1768 (Thorpe 1974:230–231).

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## THE FLAT SITE—AN EIGHTEENTH-CENTURY SKIRMISH LINE?

Bruce B. Sterling

### INTRODUCTION

In the early- to mid-eighteenth century, the Lake George region and Champlain Valley were the frontier of a new continent, which became a battleground as European powers vied to conquer and claim this territory. The conflict and struggle for colonization between warring European nations, Native American relations, and the taming of the wilderness are topics of this turbulent era that have intrigued scholars and laymen for generations. This interest has produced many popular stories, including *The Last of the Mohicans* of the “Leatherstocking Tales” by James Fenimore Cooper, and numerous tales of Robert Rogers and Rogers’ Rangers, including *The Northwest Passage* by Kenneth Roberts. Today, eighteenth-century battle reenactments and period cantonments are more popular than ever. This current interest has carried over into archaeology, including the specialty of battlefield, or military, archaeology. Dr. Charles Fisher wrote that “military sites are artifacts . . .” (Fisher 1995). This statement is especially relevant for the Flat site, which may be the only remnant of a singularly bloody military engagement between the British and the French on the western shore of Lake Champlain. An initial archaeological analysis of the Flat site, identified in 1999 by Kingsley and Alexander, suggested the site may be the oldest known battlefield in North America. Seven years later, a second team of archaeologists returned to the battle site in an attempt to further reveal its secrets. This paper will examine the archaeological evidence uncovered at the Flat site and the historical record of various skirmishes along Lake Champlain near Crown Point during the mid-eighteenth century, including the 1747 skirmish noted by Kingsley. The focus will be on what the archaeological record reveals about the participants who were involved in this deadly battle during this prominent and chaotic chapter in the history of northeast colonial America.

### THE SURVEY

Hartgen Archeological Associates, Inc. (HAA, Inc.) was contracted to conduct a Phase IA and IB archeological assessment of a private property located on the western shore of Lake Champlain’s Crown Point Peninsula (Figure 2.1). The property is located less than two miles south of the ruins of the Fort St. Frédéric/Crown Point State Historic Site and falls within the Fort Crown Point National Historic Landmark District. Because of the site’s location and the existence of a known archaeological site on the property, the project was determined by the New York State Office of Historic Preservation to be highly sensitive for both eighteenth-century military and Native American occupation. The purpose of the survey was to assess a one-half acre portion of the property prior to the construction of a private home, garage, and septic system.

The property is a hay field on a level terrace, with a small woodlot along its eastern border overlooking Lake Champlain. A natural drainage along the northern edge of the project area crosses the property from east to west and expands into a deeper, wider gully in the woodlot before draining into the lake. There were minor disturbances within the project area, including plowing, thinning of the woodlot, and grading for a gravel drive.

#### The Kingsley and Alexander Survey

A potential military site was identified on the property during a 1999 survey conducted by Dr. Ronald Kingsley and Harvey J. Alexander for the independently sponsored Crown Point Regional Shoreline Survey. The survey identified a total of three possible eighteenth-century military sites, including two located near the HAA, Inc., project vicinity: the Lapstone Point Site, situated south of the property and the Flat site located adjacent to the HAA, Inc., project area on the project property. This

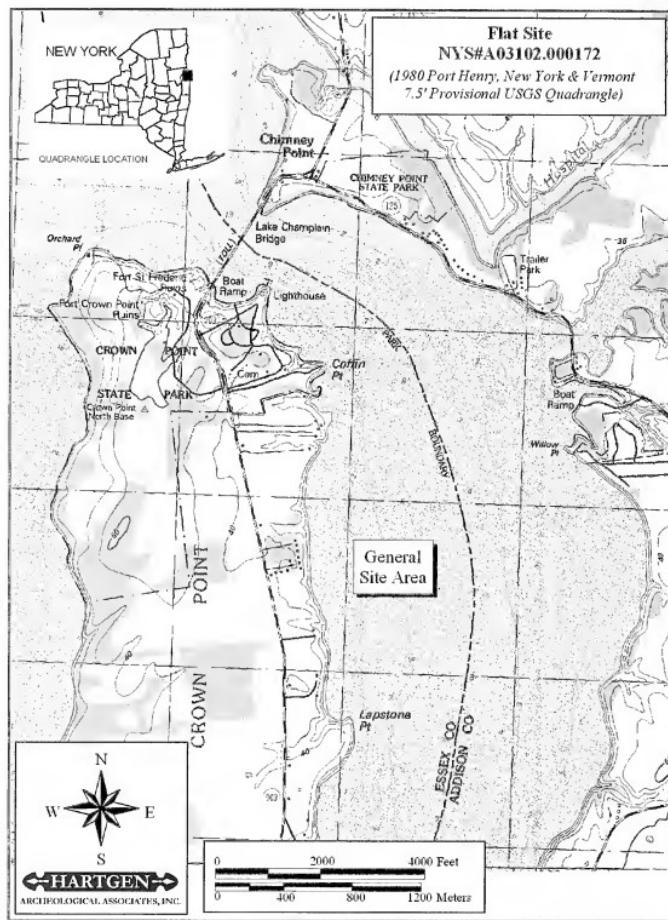


Figure 2.1. The Flat site, general project area location.

paper will assess only the Flat site, which was identified in 1999 and reexamined in 2006.

The Flat site (NYS# A03102.000172) was identified as the possible location of a well-documented English and French skirmish site dating to 1747 (Kingsley and Alexander 2005). In brief, Kingsley and Alexander's work consisted of a metal detector survey in which 100

percent of the property was detected along a 5-foot grid utilizing a White's Coin Master II metal detector. Three widely dispersed possible eighteenth-century artifacts were recovered outside the current project area, including two dropped or unfired musket balls and a possible eighteenth-century French iron knife fragment. Kingsley noted that the property had been known by

local collectors as a place to recover musket balls, reporting that "numerous lead balls" were recovered from the northeast quadrant of the property (Kingsley and Alexander 2005). However, Kingsley and Alexander could not gain access to any collections or acquire any specific information on the type or density of artifacts recovered. I will return later to the specifics of Kingsley's interpretation of the site and the recorded 1747 skirmish.

### HAA, Inc., Survey

The 2006 HAA, Inc., survey conducted near the Flat site was restricted to the proposed house site and septic field impact area and did not extend into any areas where Kingsley originally recovered artifacts. The survey combined a traditional shovel test survey and a systematic metal detector survey to ensure that all cultural material, including historical, military, and pre-Contact material, would be covered. The initial shovel test survey consisted of 69 tests excavated at 25-foot intervals on eleven transects across the project area. Testing produced a light scatter of late nineteenth- to twentieth-century agricultural refuse. No pre-Contact cultural material and no significant historical artifacts were encountered. As anticipated, no military artifacts were recovered through the traditional shovel test survey.

Historically, the use of metal detectors as a tool for archaeology has been viewed by archaeological researchers with some trepidation. The machines were distrusted for various reasons. Since historical site analysis relies on all artifacts, including ceramics, glass, bone, and other materials, as well as metals, metal detectors were considered limited as an archaeological tool because of their bias for metal items. This bias for metal led to further distrust because the instruments became associated with avocational and amateur collectors whose interest in artifact collecting, often without regard to archaeological context or documentation, could compromise a site's integrity through a permanent loss of data. In short, many professional archaeologists, researchers, and others associated metal detectors with looting and site destruction. However, since the mid-1980s, this skeptical view has gradually changed to one of acceptance of detectors as a research tool, particularly on military sites as interest in battlefield archaeology grows (Geier and Winter 1994, Smith 1994). Several influential surveys have met with notable success, starting with the landmark study at Little Big Horn by Scott (1997). Subsequent successful studies have been numerous, including Civil War sites conducted by Lees (1994, 1996) in Oklahoma and Kansas, Sterling and Slaughter (2000) at Antietam Battlefield in Maryland, Reeves (2001) at Manassas Battlefield in Virginia, and Stone et

al. (1996) at Monmouth Battlefield in New Jersey.

Through these investigations, researchers have discovered that metal detectors are well-suited for military sites where metal objects are the primary remnant of the military presence on the landscape. Shovel test surveys are very effective in identifying pre-Contact and historical occupation sites where artifacts are clustered in discrete densities across an often broad landscape (Kintigh 1988). On military sites, particularly battle sites, single metal artifacts are lightly scattered across the landscape in an apparent random pattern. When solely employing a shovel test methodology, these military artifacts are almost always missed due to their sparse distribution (Connor and Scott 1998:78; Reeves 2001; Sterling and Slaughter 2000). With the systematic use of metal detectors, an archaeologist can quickly locate, recover, and identify a military presence across a landscape. By plotting in the military finds with a transit and producing artifact distribution maps, the seemingly random scatter of militaria can often be interpreted as distinct military features. It is clear from the successful results of the aforementioned surveys that a systematic metal detector survey is the only viable method for data recovery on battlefield and battle-related sites. Essentially, the metal detector replaces the sifting screen and small shovel test unit as the archaeological tool for artifact recovery and feature identification on military sites.

At the time of the 2006 Flat site survey, the field conditions were nearly ideal for metal detecting; the hay had been cut, the undergrowth removed from the woodlot, and the ground was very damp. Eleven separate survey transects were established at eight meter intervals within the test area. A string line was set up to guide the metal detectorist within each transect. The average sweep of the metal detector covers two meters on each side of the string line, resulting in a four meter linear metal detection sweep every eight meters, or a fifty percent sample of the test area. A White's Spectrum XLT metal detector was used for this survey. All metal hits were identified and flagged. All flagged hits were then collected by separate collection teams utilizing White's Di-Pro 6000 metal detectors (Figure 2.2). All potentially military or significant artifacts were collected, bagged, and given a unique artifact number. Each numbered artifact location was flagged and its coordinates determined with a total station to be plotted onto the project map.

The initial systematic metal detector survey resulted in the retrieval of the usual assortment of nineteenth- and twentieth-century artifacts and ubiquitous refuse along with a low density of dropped and fired musket balls. The musket balls were recovered from the topsoil in both the woodlot and hay field, in an apparent linear alignment at the northern boundary of the project area.



**Figure 2.2.** Metal detection team retrieving an artifact from the soil with a White's metal detector.

To better define the limits of the identified artifact concentration, an additional ten test transects were established and detected, resulting in a 100 percent metal detector survey of the established grid. The additional testing proved quite successful, more than doubling the artifact assemblage. A concentration of military artifacts was identified at the north end of the project area, consisting of three buttons, thirteen dropped and fired musket balls of various calibers, and one buck or swan shot (Table 2.1). The military artifacts were oriented linearly along the east-west width of the project area within both the open field and woodlot (Figure 2.3).

The military feature measured approximately 96 m (315 ft) north-south by 23 m (75 ft) east-west. The full western limit of the feature was not identified because it appears to extend beyond the boundaries of the project area. The northern boundary is oriented along the upper edge of the drainage with no artifacts extending into the southern slope of the drainage. To the east, the artifact concentration terminates at the top of the bluff overlooking the lake. The southern boundary is defined by a dearth of artifacts. The feature clearly appears to be aligned along a natural land form, at the height of land overlooking the edge of the shallow ravine and drainage.

There appear to be two discreet concentrations of artifacts within the overall linear feature. However, the lack of artifacts between the two concentrations is likely due to the only gap in metal detector coverage resulting from the presence of a thickly wooded hedgerow and a low-lying wet area between the field and wood lot. Despite the gap, the artifact concentrations were determined to be a significant military archaeological feature, specifically a firing or battle line associated with an eighteenth-century skirmish.

**Table 2.1.** Eighteenth-Century Military Artifacts from the Flat Site.

Artifact #	Musket Ball	Button	Caliber	Dropped	Fired
1-T4.1	X		.52		X
2-T5.1	X		.68		X
3-T5.2	X		.50		X
5-T6.1	Buckshot		-	-	
7-T10.1	X		.55		X
9-T11.1	X		.54		X
10-T11.2	X		.58		X
11-T11.3	X		.70		X
12-T11.4			X		
14-T12.2			X		
15-T12.3	X		.67		X
16-T12.4	X		.67		X
17-T13.1	X		.54		X
18-T13.2	X		.69		X
20-T13.4	X		.54		X
21-T15.1			X		
22T18.1	X		.69		X
<b>Total</b>	<b>13</b>	<b>3</b>	<b>—</b>	<b>8</b>	<b>5</b>

In consultation with the Historic Preservation Office, a 40- to 60-foot protective buffer was established between the planned house construction site and the military feature. After the project was redesigned to protect the feature, a second phase of shovel testing and metal detecting was conducted to ensure that no new significant resources would be impacted by construction. No additional significant artifacts or archaeological features were identified on the property.

## HISTORICAL CONTEXT OF AN EIGHTEENTH-CENTURY SKIRMISH LINE

Following two archeological surveys, the Flat site was identified and protected from development. Can this significant feature with its light artifact assemblage be associated with the eighteenth century, specifically with a particular documented event such as the April 1747 skirmish as Kingsley suggests? First the feature should be placed within a regional historical context. Since the early seventeenth century, the Crown Point Peninsula has played a prominent role in the history of North America. In 1609 Samuel de Champlain first explored, charted, and claimed for France the lake that now bears his name. The stage of conflict was set later that year on the nearby lake shore when Champlain's party was

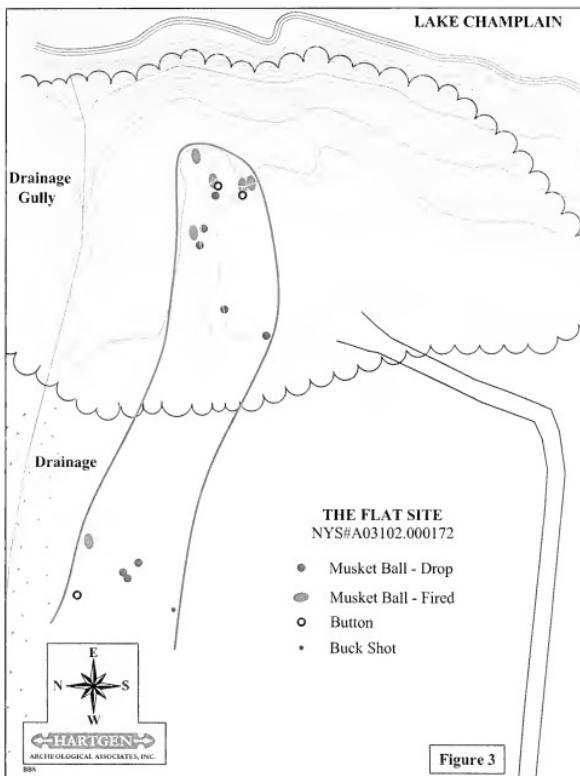


Figure 2.3. The Flat site boundaries and artifact locations.

attacked by a party of Iroquois. With one shot, Champlain reportedly killed two Iroquois chiefs and the raiders were driven off (Tuttle 1909:235). For the next two centuries the history of the Champlain Valley would be marked by conflict, including four wars and a revolution—confrontations primarily between the French and the British with their Native American allies. Until the mid-eighteenth century the French were able to control trade and transportation routes between Montréal and Albany, in large part by controlling Crown Point.

The French first occupied Crown Point in 1731 with a small force. In 1734, construction began on Fort St. Frédéric, the first substantial fortification in the area.

The French presence in the region was never accepted by the British, who deployed small forces to spy on and harass the French, but with little success. It was not until 1755, during the French and Indian War, that the British mounted serious attacks against the French at both Crown Point and later at Fort Carillon (Ticonderoga). The British finally succeeded in taking the fort at Crown Point in 1759. With Fort St. Frédéric destroyed, the British constructed a larger fort at Crown Point to better secure their position. This was one of the largest military engineering projects undertaken in North America, which entailed construction of 200 hut sites outside the fort (Fisher 1995), and a system of blockhouses and military roads through the area. The fort was eventually

abandoned during the Revolutionary War and Crown Point lost its military and strategic importance. After the Revolution, the lands around Crown Point reverted to agricultural uses and modest rural settlement.

### King George's War and the Flat Site

What is of importance is how the identified Flat site skirmish feature might fit within the military context of the region. During King George's War (1740–1748) the French had firm control of the Champlain Valley with Fort St. Frédéric as a base from which to mount harassing attacks against British incursions. For their part, the British sent parties to spy on the French, but had problems mounting any serious organized attacks. Based on Kingsley's research, there was only one known significant fatal attack against the French close to Fort St. Frédéric that could be considered a skirmish: on April 28, 1747, a small British force attacked a French work crew in the woods near the fort.

This action was described in a letter sent by British Colonel Johnson to Governor George Clinton. He wrote that Lieutenant Walter Butler, Jr., a provincial officer commanding 13 Indian allies "... came upon a tract of several persons going toward the Garrison, they pursued them until they got within a half mile of the Fort ... employed in beating and dressing some toucht [sic] wood ... our thirteen Indians took the opportunity of approaching under a Bank; by the advantage of the Bank they got very near the French without being discovered, and found that the enemy consisted of twenty seven soldiers and three Indians; our Indians fired upon them and killed three whereupon the enemy returned the fire briskly but without execution, our Indians having loaded again gave them a second volley killed one more and wounded three upon which the Enemy retreated ... but one of their Officers brought them back to their ground again, and then they fought smartly and the chief of our Indians was wounded through the breast and one arm and another slightly on the knee, upon this it is said our Indians enraged fought more like Devils than Men ..." The French "discouraged ... fled toward the Fort, except two Officers and a Serjeant who continued fighting bravely till they all three fell ..." Some of the British Indians pursued the fleeing French back "till they came within Musket shot of the Fort and say they saw nine wounded men carried into the Garrison by the others; they then returned to the place of Action but observing a party from the Garrison coming after them, they had only time to take six scalps ..." (O'Callaghan 1855:343–344).

There are also a few French military records referencing the skirmish; "a party of Mohawks and English had fallen on 21 French scouts near Fort St. Frédéric, and

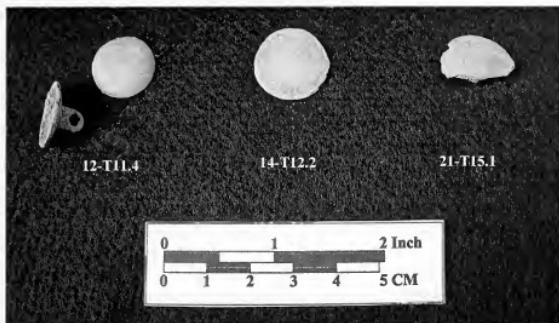
killed and scalped five of them: Sieur Laplante, an officer, had been very badly treated on that occasion, having received 7 gun shot wounds. This unfortunate occurrence was the result of too much confidence on the part of the French, who have been surprised." (O'Callaghan 1858:96) A separate French account from July of 1747 described the skirmish this way; "... Monsieur de la Plante, having left with a detachment of twenty men to reconnoiter in the woods one league from the fort, was discovered, surprised and attacked by enemy Savages (at one o'clock in the evening, at ½ league from the fort). He was wounded with three gunshot pellets to his right hand. We also lost a militia officer, a soldier from the garrison and three militiamen. Another four militiamen were wounded" (O'Callaghan 1858:36). The interment records from the priest, Brother Hippolyte Collet, also place the skirmish "one-half league from the fort, in the area of the Bay" (Seminaire de Saint-Sulpice 1732–1760:61, translated from the French by Joseph-Andre Senecal in Kingsley and Alexander 2005:29).

While the accounts are in many ways very similar, there are minor differences between them. The most notable is the distance from the fort; the British account places the skirmish site a half a mile from the fort, while the French at half a league (or a mile and a half). The French record five dead and five wounded while the British claimed seven killed and seven wounded with six scalps taken. The French numbers are likely to be more reliable because they were recording the buried dead, though they do not mention any casualties among the French Indians. The British could only rely on a visual assessment of the casualties made during the heat of the battle without any after-battle confirmation.

### The Flat Site Interpretation

Could the linear feature and potential firing line identified at the Flat site be associated with this 1747 skirmish? The location of the site, within a mile and a half of the fort, is consistent with the French account. The setting of the site is also similar to that in the account, located adjacent to a ravine and a high steep bank from which the attacking Indians, as described, could surprise the French scouts. Possibly more telling than the similarities of location, is the more concrete material evidence—the artifacts. Could the military artifacts be associated with the 1747 skirmish described in the historical record?

The military feature is composed of a modest subsurface scatter of both unfired (or dropped) and fired lead shot and three military buttons (Table 2.1). In all, seven dropped and six fired musket balls of various calibers



**Figure 2.4.** Eighteenth-century buttons recovered from the Flat site.

**Table 2.2.** The Flat Site: Eighteenth-Century Buttons.

Artifact #	Location	Artifact	Material	Grams	Notes
12	T11.4	Button	Cupreous	x	3 piece, .64 inch diameter, British Military second half of eighteenth century
14	T12.2	Button	White Metal	2.2	2 piece, .73 inch diameter, French Military (1730–1760) ca. 1750
21	T15.1	Button	White Metal	2.2	.73 inch diameter, British Military 1726–1776

were recovered, along with one unfired smaller buck or swan shot. It must be noted that, in an archaeological context, musket balls are not necessarily eighteenth-century artifacts. Musket balls have been in use along the shores of Lake Champlain since those first shots by Champlain in 1609 (Tuttle 1909:235). Round shot were by far the most common and possibly the only projectiles available until the late 1850s when the conical bullet or Minie ball was developed. Round and swan shot are still in use today by black powder hunters and reenactors. For archaeologically recovered musket balls to be attributed to the 1700s, they must be identified within an eighteenth-century context. The musket balls recovered at the Flat site during this survey were found within a distinct cluster designated as the skirmish feature, dated to the eighteenth century by their association with the period military buttons. The three buttons recovered are all undecorated eighteenth-century buttons common to military sites. None are diagnostic regimental buttons (Table 2.2 and Figure 2.4). Two of the buttons are associated with the British military and were in use during both the King George's and the French and Indian Wars. The third button is not as easily identified; it dates broadly to the second half of the eighteenth century, and could be either associated with

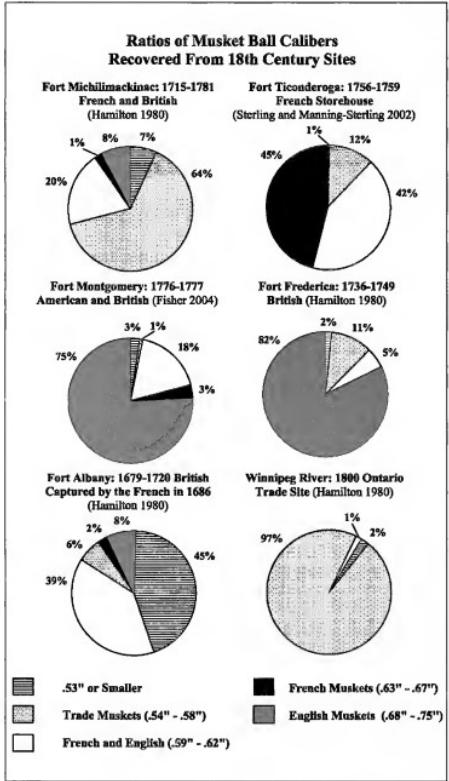
the French military and may also have had civilian uses (Stone 1974:45–51).

There is no hard evidence that the military feature identified at the Flat site is associated with the 1747 skirmish, but the button assemblage lends some credence to the possibility that the feature dates to the period of the recorded skirmish. All three buttons date to at least the mid- to late-eighteenth century; however, identifying undecorated plain buttons from this time period is no simple task. There are numerous type and size variations that can only be assigned to general time periods and nationality. Many of these undecorated buttons were also trade buttons, which could be acquired by almost anyone. In addition to trade buttons, clothes and uniforms could also be acquired by opposing forces through the spoils of war. In all, with this small assemblage of non-regimental undecorated buttons, it is more reliable to assign the assemblage to a general time period than to a specific national army.

What is most revealing about the artifact assemblage from the skirmish feature is the wide caliber range of musket balls recovered. Research has shown that there are distinguishable size patterns for musket balls found on military and trade sites in eighteenth- and nineteenth-century North America (Hamilton 1980; Sivilich

**Table 2.3.** Musket Ball Caliber and Associated European Musket.

.53" or smaller	Unknown and Mixed Affiliation
.54-.58"	Trade Musket, Not Military Issue
.59-.62"	French and English Muskets
.63-.67"	French Muskets
.68-.75"	English Muskets



**Figure 2.5.** Comparison of musket ball calibers recovered from eighteenth-century contexts.

1996; Sterling and Manning-Sterling 2002). Generally, musket balls can be divided into five size categories (Table 2.3 and Figure 2.5). Two common shot sizes can be used to differentiate French from British sites. English sites are distinguished by the larger musket balls measuring over .68" caliber, which were used for the .71-inch-plus-caliber "Brown Bess" musket.<sup>1</sup> The French infantry troops were issued the .69-inch caliber "Charleville" musket, which loaded musket balls measuring between .63" to .67" caliber (McCullough 2000:31). Found on all sites, the smaller shot are generally associated with trade muskets. The Flat site assemblage is composed of an almost equal number of round shot associated with English muskets and trade muskets, combined with a few of the smaller shot, which may also be associated with trade muskets. In addition, two French musket balls were recovered. Significantly, these musket balls had been fired.

The feature's small but significant assemblage suggests two complementary scenarios. First, the feature represents an English skirmish line that was under small arms fire from a French force. The two fired balls from the smaller caliber French muskets indicate that the British line was probably taking fire from French troops. Secondly, the English force was likely composed of Native American and/or Colonial regiment troops. Native Americans and Colonial forces were not equipped as British regulars; rather, they would have carried trade muskets or other non-military arms supplied through their own means. The trade muskets the British and French provided for their allies, particularly the Native Americans, fired smaller and lighter balls, which were considered less accurate (Bouchard 1998:38-39). The dropped ball assemblage from the feature consisted exclusively of the larger British shot and the small shot for the trade muskets.

Finally, there was also a dropped buck shot (or bird shot) found near the feature. The British account specifically mentions the use of swan shot during the skirmish; "one of our Indians run up (on observing one of the French Indians presenting his piece) within ten yards of him and discharged his piece loaded with Swan shot into his breast, upon which he fell dead" (O'Callaghan 1855:343).

The position of the skirmish line on the landscape suggests the British force was firing north toward the further bank of the unnamed drainage where, presumably, a matching line of French forces was returning fire. One of the unfired musket balls found by Kingsley was recovered from this far bank, the probable location of the French skirmish line. This is also the location area where collectors have reported finding musket balls. Unfortunately, for a more complete survey, this northern

location was beyond the scope of the HAA, Inc., metal detector survey and is not scheduled for development. An agreement between the state and the landowner now protects the property and the site from collectors.

Based on a comparison between the limited archaeological record from the Flat site and the historical record, there are distinct similarities suggesting the Flat site may indeed be the location of the 1747 historic skirmish near Fort St. Frédéric as Dr. Kingsley suggests. However, there is one significant discrepancy between the written record and the location of the Flat site. The French interment register recorded by the priest at the fort refers to the skirmish as occurring "one half league from the fort in the bay" (Seminaire de Saint-Sulpice 1732–1760:61, translated from the French by Joseph-Andre Senecal in Kingsley and Alexander 2005:29). This translation of "*dans la Baye*" (from the French), makes interpretation of the site more interesting. The priest is clearly describing the distance of the skirmish from the fort. The phrase "*dans la Baye*" could mean that the skirmish was fought on the bay side, or the west side of the peninsula on Lake Champlain. Today, this body of water, on the west side of the peninsula, is called Bulwagga Bay. This interpretation would place some doubt on the identification of the Flat site as the location of the 1747 skirmish. However, according to Andre Senecal from the Department of Romance Languages at the University of Vermont, who has translated the entire interment records from 1732 to 1760, the use of the term "*dans la Baye*" is a general phrase that should not be taken too literally and is only a vague notation referring to a broad area. He suggests that in this context, the phrase would not necessarily refer to a specific east or west direction from the fort. Senecal also noted that there are many discrepancies with the writings from the eighteenth-century New France, including those of priests who had problems of poor spelling and bad sentence structure, which hinder discerning meaning and intent for an accurate translation (Senecal, personal communication 2007).

A cursory examination was made of 14 eighteenth- and early nineteenth-century maps from the New York State Library and the Crown Point Historic Site Research Library collections in an attempt to understand the phrase, "*dans la Baye*." The body of water west of the Crown Point Peninsula on these maps was referred to as a 'bay' (of various names) on eight maps, called a creek on one map, and the remaining five maps did not specifically name this body of water but included it as part of Lake Champlain.<sup>2</sup> Interestingly, none of the mid-eighteenth-century maps in the collection, including the only two drawn French maps in the collection, from the time period of the possible skirmish and the French

interment record, refer to the water west of the peninsula as a bay. All the references to the area as a bay are from later English or American maps and one German map from 1777. From the same map collection for the waters east of the peninsula, where the Flat site was identified, none refer to the lake as a bay. This portion of the lake is referred to as a river or creek on a majority of the maps (seven), while three label the eastern waters as part of Lake Champlain and the remaining three leave these waters unlabeled. Based on the ambiguity or variability for the names of the body of water west of the Crown Point Peninsula, particularly in the mid-eighteenth century, it is nearly impossible, with any certainty, to ascertain what a priest on the frontier meant by a simple phrase such as "*dans la Baye*." Nor is there any evidence that the priest, who was not engaged in the skirmish, would have necessarily known specifically where the deadly skirmish had occurred so far from the confines of the fort, except near the lake shore.

### Other Eighteenth-Century Skirmishes

The comparison of the archaeological record and the historical documentation offers a compelling comparison of evidence regarding the events of the skirmish on April 1747 near Crown Point. However, archaeology does not definitively support the 1747 date for the Flat site either. In addition to the April 1747 skirmish, there are 20 other known engagements from the historical record in the Crown Point vicinity between 1746 and 1758. Among these, there are three candidates that may also have the potential to be associated with the skirmish at the Flat site. On July 30, 1747, a skirmish between the British and the French and their Native American allies occurred at an unspecified location on Lake Champlain. As reported, a British officer, Lieutenant Chew, with 100 men, was charged to reconnoiter a party of "3000 French and Indians in 300 canoes" and fell in with the enemy. In the ensuing battle, 15 British were killed and 47 were taken prisoner, including Lieutenant Chew (*Gentleman's Magazine*, Vol. 17 Sept. 1747, 445). This description does not mention whether the skirmish was located near Crown Point and provides no details about the British troops engaged in the skirmish. Based on the limited historical and archaeological record, the engagement may have been larger than what the feature at the Flat site suggests.

On June 18, 1755, the second skirmish occurred. In this account, a prisoner who had escaped from the French was aided by sympathetic Indians. These Natives had reportedly planned to stop at Crown Point, presumably before they encountered the escaped prisoner, "but were beaten off by the French" (*The Pennsylvania Gazette*,

1755). This vague account simply suggests there was some encounter between Native Americans sympathetic to the British and the French near Crown Point. Unfortunately, this brief description offers almost no information on the engagement itself, save the phrase "beaten off by the French." It is unclear whether there truly was a skirmish complete with an exchange of gun fire and casualties. Nor is there any description of how many Natives and French troops were involved in the encounter, or where it occurred in relation to the fort at Crown Point. However, the description suggests this skirmish may have been of a smaller scale than is suggested by the remnant military feature at the Flat site.

### Rogers' Rangers

The artifact signature from the Flat site, with a mix of larger British balls for the "Brown Bess" and smaller musket balls for trade muskets, suggests the skirmish could also have been between Rogers' Rangers and the French. The Rangers were active in the Lake Champlain area around Crown Point and Fort Carillon (Ticonderoga), spying on and harassing the French mainly during the French and Indian War (1754–1761).

Rogers' Rangers were a Colonial militia unit who, like the Native allies, would not have been supplied with weapons as British regulars; rather, they were expected to supply their own weapons, accoutrements and uniforms (individually or through their commanders) (Todish and Zaboly 2002:88). As British Captain John Knox noted in 1757 of the dress of the Rangers, "at present, no particular uniform, only they wear their clothes short" (Todish and Zaboly 2002:300), presumably referring to short hunting coats or waist coats and vests. Various vague references to the Rangers' uniforms are found in the spotty historical record from the eighteenth century indicating their clothing was acquired by a variety of means over time, including, after the late 1740s, French clothing was captured at sea and purchased from the captain "very cheap" (Todish and Zaboly 2002:296–303). Another reference from 1755 describes a 'Ranging Company,' the 1<sup>st</sup> New Hampshire, with no issued uniforms, clothed in "modified civilian or hunting garb." Other accoutrements were acquired in plunder when the French and Indians were routed at Lake George (Todish and Zaboly 2002:296–303). Buttons on Rangers' uniforms could be of a wide assortment of plain either 'brown or yellow metal' (brass) or 'white metal' (pewter) buttons, which would have come with their hunting coats, or modified uniforms with other buttons possibly added through trade or spoils. The buttons recovered at the Flat site are of types that could have been part of the uniforms worn

by Rogers' Rangers.

The third and final possible skirmish which could potentially be associated with the Flat site was fought between the Rangers and the French at Crown Point and took place on February 3, 1756. Fifty Rangers under the command of Captain Robert Rogers engaged and defeated an unknown number of French and Indians within half a mile of the fort at Crown Point, while taking and destroying several French structures. During the engagement, it is reported, they advanced within sight of the fort (O'Callaghan 1855 and *The Pennsylvania Gazette*, 1756). The description suggests an engagement closer to the fort, located near French structures, which, based on location makes it less likely to be the skirmish identified as the Flat site.

### CONCLUSION

None of the three possible engagements between British forces and the French described above are as well documented as the April 1747 skirmish. Nor are any of these examples any more likely to be associated with the Flat site than the well-documented skirmish as Kingsley originally suggested. This is where the importance of archaeology really comes into play. Through archaeological investigation, a previously anonymous battle site was identified. The low-density military assemblage and its specific artifact signature are attributable to a skirmish between French forces from Fort St. Frédéric and a British force with Native allies, or possibly Rogers' Rangers, likely dating to a 12-year period between 1746 and 1758. The archaeological identification of the site has led to further avenues of research specifically of French records pertaining to skirmishes in the area. In addition, as future archaeological surveys are conducted, more will be revealed about other military sites, which likely are located within the Crown Point vicinity. At the Flat site, further work to the north where musket balls have been collected could also better define this important military site.

It must be noted here that even though the HAA, Inc., survey at the Flat site included a nearly-complete-coverage metal detector sample of the project area, this was only a preliminary survey of a portion of a larger site area. If the known feature extends farther to the west and a second French firing line is located on the high ground to the north, as suggested by the survey, then additional archaeological testing is warranted. In addition, a more intensive metal detector survey of the entire Flat site area would likely reveal more substantive information about this significant military skirmish site. More intensive archaeological metal detector surveys include detecting over the same location

numerous times, often reorienting detector transects for multiple passes from different directions (Reeves 2001; Stone et al. 1996). One advantage of this methodology is that it helps clear the test field of non-military background metals, which inhibit the machine's ability to detect significant items. Most importantly, with each new seemingly redundant pass of the detector, additional significant military material may be recovered. Other important strategies for effective comprehensive metal detector survey that may be employed include clearing brush from the hedgerow and plowing the fields before each survey to help bring artifacts closer to the surface. Another strategy involves employing different detectors and detectorists. Not only will different people have varying results but new more powerful machines are being introduced to the market that would likely improve results. Finally, utilizing optimum weather conditions, particularly calm windless days after the rains when the soil is damp, can improve the effectiveness of the metal detectors. A frequent and very important quote of metal detector enthusiasts is "you will never get it all." The preliminary metal detector survey on the Flat site only covered a truncated portion of the site and recovered a fraction of the site's potential, giving researchers a small glimpse of what the site may ultimately offer with a more complete and intensive survey.

On a grand scale, the Flat site definitively dates to a period when eastern North America was a frontier, where great European powers vied for control of the Champlain Valley and the new continent beyond. The Flat site also tells a story about a skirmish between men of two opposing armies, who clashed on the shores of Lake Champlain causing some to lose their lives. It is through archaeology that these nearly forgotten stories can be re-told.

Some controversy surrounds the date of and the identification of the Flat site skirmish. If the Flat site is associated with the well-documented battle of April 1747, it not only tells a great story for archaeology, New York State, and U.S. history, but also might distinguish the Flat site as the oldest known battlefield in North America. The other three later known skirmishes addressed in this analysis may not be as illustrious and do not present as gripping stories because they are poorly documented in the historical record. It is important to keep in mind that the Flat site archaeology project represents an archaeological success story: through archaeology, metal detecting, and cultural resource management, the Flat site was identified and protected from development and further collecting, while a property owner was able to construct his dream house with only minor inconvenience.

## ENDNOTES

1. The caliber or the ball size as measured in a fraction of an inch is smaller than the caliber of the muzzle of the gun for which it is intended. For muzzle-loaded muskets, the difference between the muzzle and ball size, 'windage,' is necessary to more easily load the ball into the musket without jamming.
2. The various names for the bay include Riverhead Bay, The Great Bay, West Bay, Bullwag Bay, and Bulwaggy Bay; today it is Bulwagga Bay.

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## TICONDEROGA:

### French Fort Construction on the Eighteenth-Century Frontier

Elise Manning-Sterling

#### FORT AND PROJECT HISTORY

In 1755, the French began construction of a fort, named Carillon, on a strategic promontory on the western shore of Lake Champlain. The fort, which played a critical role in both the French and Indian War and the Revolutionary War, has witnessed 250 years of construction, reconstruction, and restoration, conducted by the French, British, and American armies who occupied the fort in the eighteenth century, the Pell family who owned the fort grounds in the late nineteenth and twentieth centuries, and the present stewards—the Fort Ticonderoga Association.

Intensive archaeological investigations conducted at Fort Ticonderoga over a several-year period have greatly broadened our knowledge of the original fort configuration and eighteenth-century military construction techniques. Archaeology has offered insight into the state of the original landscape in 1755—how the French engineers envisioned and built the fort, and altered the landscape to suit their military and engineering. Excavations provided evidence on French construction methods and materials, some of which conformed to standard military practices. Other French structural features suggest that the rigid military standards were altered to accommodate the limited resources at this frontier outpost. Archaeology also allows an understanding of how the British maintained, used, and changed the fort design to suit their military and domestic needs.

A short outline of the fort's history and occupation by different armies will help in understanding the sequence of construction and use of the architectural elements and buildings. The fortifications of Carillon, the name given to the fort by the French, were begun in 1755 and progressed until the summer of 1759. The King's engineer was Michel de Lotbiniere, a young Canadian engineer officer who was given this commission by his aunt's husband, New

France's Governor Vaudreuil. The young engineer was the son-in-law of Monsieur de Lery who drafted one of the valued French military manuals of the period. Over the next several years, Lotbiniere made a concerted effort to build a fortress to hold this strategic promontory on Lake Champlain. This locale was vital to military domination of the region, as it guarded the water route linking the French-held Richelieu River to the north with the British-held Lake George and the Hudson River to the south (Figure 3.1, United States Geological Survey, 1950). The construction of a fort at this location exemplified military strength but was also a symbol of France's permanence on the North American continent.

In 1758, during the height of the French and Indian War, British forces under General Abercrombie made a disastrous attempt to take Carillon from the French. One year later, in July 1759, English forces led by General Amherst attacked Carillon. Aware that their

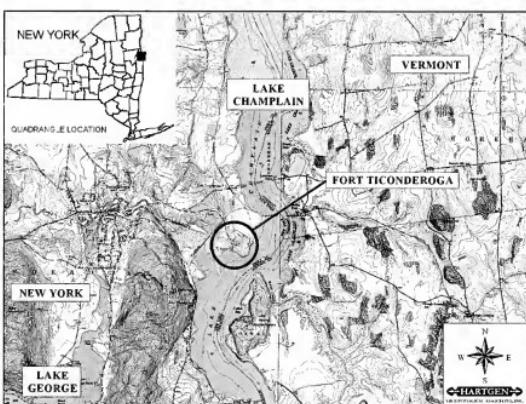


Figure 3.1. Location of Carillon/Fort Ticonderoga.

forces would not hold the fort, the French escaped to the north and left behind a small delaying force under orders to blow up the powder magazine located in the Southeast Bastion. The British took control of the damaged fortress, and restored its original Native American name of Ticonderoga. In May 1775, during the early days of the Revolutionary War, American forces led by Ethan Allen and Benedict Arnold stole into the fort in the early morning hours, surprising the sleeping garrison. The Americans maintained control of the fort until July 1777, when the British under General Burgoyne recaptured the fort. In September of that year, after the defeat of Burgoyne's army at the Battle of Saratoga, the British abandoned the fort and withdrew to Canada.

During the nineteenth century, the fort languished, becoming the focus of sightseers, picnickers, and those seeking stone for construction (Figure 3.2). In 1908, Stephen Pell and English architect Alfred Bossom launched a restoration effort based on Bossom's extensive research of fort plans and history (Bossom, n.d.). The 1908 Pell family reconstruction, which restored the fort to the period of Amherst's command, was one of the earliest attempts at historic preservation in the United States (Figure 3.3, National Park Service 1984).

In 1960, the fort acquired National Historic Landmark status as part of the Fort Ticonderoga/Mount Independence National Historic Landmark. The landmark is centered on three separate promontories of land, which extend into Lake Champlain near the outlet to Lake George and include Mount Defiance and Fort Ticonderoga in New York and Mount Independence in Vermont (National Park Service 1984).

The Fort Ticonderoga component of the National Historic Landmark includes the restored and reconstructed fort and two associated structures—the early twentieth-century gatehouse and the early nineteenth-century pavilion. Also incorporated within the Fort Ticonderoga component are the remains of numerous military fortifications and earthworks, and the sites of eighteenth-century structures, including the French lines and earthworks located northwest of the fort; the remains of a French village located directly south of the fort; the site of the *Jardin du Roi*, the King's Garden; and a hospital site and defensive works on the shore of Lake Champlain.

As part of ongoing fort maintenance and stabilization efforts, Hartgen Archeological Associates, Inc., conducted investigations at Fort Ticonderoga beginning in 1998. Based on eighteenth-century accounts and twentieth-century reconstruction records, which documented the removal of original soils, it was believed that little original structural fabric was left intact. However, archaeological investigations over the past 10 years have



**Figure 3.2.** Postcard showing ruins of the West Barracks at Fort Ticonderoga prior to the 1909 restoration.  
Collection of Carl Crego.

**Figure 3.3.** Postcard showing the restored West Barracks at Fort Ticonderoga.  
Collection of Carl Crego.

identified well-preserved eighteenth-century features—excavations in the Parade Ground revealed several eighteenth-century occupation surfaces; over 60 cultural features, including pits, walkways, builder's trenches and mortared stone walls, and numerous deposits attributable to both the French and British fort occupation; as well as a French wooden artillery platform and occupation surfaces on the East *Terre-plein*.

In 2005, the Fort Ticonderoga Association moved ahead with plans to build the Mars Education Center on the footprint of the fort's original East Flank, including the King's Storehouse. The King's Storehouse was a substantial structure located on the east side of the Parade Ground. It was destroyed by the French before the British took control of the fort in 1759. It was not rebuilt during any of the twentieth-century reconstruction efforts. Externally, the education center proposed to

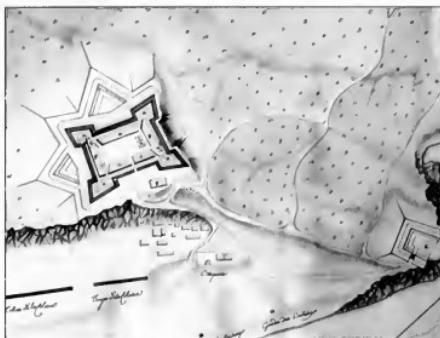
recreate the eighteenth-century King's Storehouse. However, the project design required the complete removal of the internal eighteenth-century masonry, soils, and archaeological deposits within the King's Storehouse, the *East Terre-plain*, and portions of the Parade Ground and Southeast and Northeast Bastions.

THE FORT

The French had designed a Vauban-style fort constructed of wood, stone, and earth, which contained four bastions and two *demi-lunes* (Figure 3.4, Brodhead 1858). The “*demi-lunes*,” or ravelins, were constructed on the north and west sides of the fort to protect these areas, which were most prone to attack by land. These triangular-shaped stone structures were designed to hold cannon and serve as an obstruction to an attacking army. The *demi-lunes* contained parapets between four and six feet thick, which protected soldiers and artillery in times of direct assault. The *demi-lunes* were separated from the main part of the fort by a dry moat, but could be accessed via raised gangways. The West *Demi-lune* was a solid structure filled with densely packed earth. The larger North *Demi-lune* contained two storage rooms accessible from the dry moat.

The Northeast Bastion was constructed of stone with a vaulted ceiling and hearth, flanked by two brick beehive ovens. The Southeast Bastion housed the powder magazine. The bastions were connected by earthen *terre-pleins* on the four sides of the Fort. The *terre-plain*, the surface of the rampart behind the parapet, originally measured (13 to 14 ft) in width, and contained wooden platforms on which cannon were mounted directly behind the walls' embrasures (Brodhead 1858). The East, West, and North *Terre-pleins* were earth-filled structures.

The interior of the fort was accessed through the main south gate that led to a vaulted archway. Located on either side of the arched entrance were two long rooms, possibly used for storage of goods or the shelter of horses or other animals. The archway opened up onto the Parade Ground, which was surrounded on four sides by three-story-high barracks and storage buildings. "Barracks" in eighteenth-century English and French language usage did not necessarily refer to dormitory space for soldiers, but referred to storage structures for animals, hay, people, and other material (Westbrook 2000). The north side of the Parade Ground was occupied by a long open-front storage structure. The King's Storehouse, or *Magasin du Roi*, was a three-story building located on the east side of the fort. Documentary research indicates that this eastern *magasin* was used for work space and storage of military ordnance and items and



**Figure 3.4.** Detail of *Plan du Fort Vaudreuil (Carillon)*, Germain 1756

Courtesy of the Fort Ticonderoga Association

foodstuffs for the garrison (Westbrook 2000).

## 2005 ARCHAEOLOGICAL INVESTIGATION

The 2005 archaeological investigation was conducted throughout the East Flank, which included the Parade Ground, the South Ramp and North Ramp portions of the Parade Ground, the King's Storehouse, portions of the Northeast Bastion, the East *Terre-plein*, and the Southeast Bastion (Figure 3.5). These parts of the Fort possessed many unique deposits, but three primary features were encountered that unified the disparate areas and allowed for a greater understanding of the intentions and activities of the French builders and masons. These features include the masonry walls, the mostly intact drainage system, and the original prepared, burned, and buried ground surface.

Throughout the East Flank, intact sections of eighteenth-century walls were found either to be encased within reconstructed walls or were found to lie beneath twentieth-century deposits. The documentation of the walls prior to their removal entailed measuring and photographing, and sampling of the lime mortar.

Substantial stone drains were identified and determined to be part of an elaborate drainage system that extended throughout the East Flank and beyond. Documentation of the drains included photography and mapping of the exposed features and sampling of the lime mortar and interior soils. Several capstones on each drain were removed to reveal the interior chamber and document the methods and materials of construction.

**FORT TICONDEROGA**  
AREAS OF ARCHEOLOGICAL  
INVESTIGATION 2005 - 2006

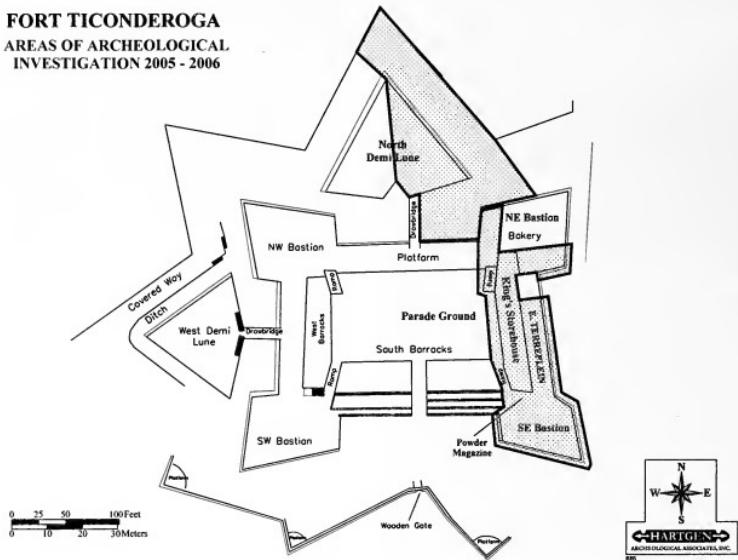


Figure 3.5. Plan of Fort Ticonderoga showing areas of archaeological investigation.

A significant feature was identified throughout the East Flank—a thin lens of burned subsoil, which often contained faunal and midden deposits. The burned subsoil, designated Feature 40, represented the first major land alteration by the French in preparation for fort construction.

### Parade Ground

Within the Parade Ground, a large utility tunnel was constructed to service the Mars Education Center. This feature required the removal of all material along the west side of the King's Storehouse. During the 2001 Parade Ground archaeological investigation, numerous features and occupation surfaces were identified, many of which were excavated in their entirety. At the northern end of the Parade Ground, stone features and surfaces were identified directly above the Feature 40 burned soil. These stone surfaces represent the very first French landscape and construction features at the site.

In 2005, the portions of these features that were to be impacted were entirely excavated. The uppermost stone

surface was composed of stone dressings, the stone shatter that resulted from the working and finishing of the limestone blocks for construction. Below this deposit were stratified features, including a layer of ash and nails, an organic lens rich with faunal material, and clusters of larger stones on top of the burned subsoil.

Two sections of a large cut stone and mortar French drain were identified under several feet of eighteenth-century fill. A north-south aligned section of the drain extended approximately 8 m (25 ft) north from the South Barracks, where it linked with an east-west section of drain at a T-intersection (Figure 3.6).

The capstones removed from the T-intersection and from the eastern end of the drain revealed two parallel lines of cut stones on either side of the open channel. The feature drained the Parade Ground down through the lower level of the King's Storehouse. The drain was so well constructed that it still channeled water after 250 years, a fact not lost on the early twentieth-century workers who incorporated the drain into the early twentieth-century reconstruction—evidenced through the presence of an iron grate and redware pipes.



**Figure 3.6.** Three views of the Parade Ground drain—interior view, plan view of drain channel with the capstones removed, and plan view of the T-Intersection.



**Figure 3.7.** Excavation of the trench overlying the North Ramp drain.

## North Ramp Extension

The northern portion of this area, situated west of the stair tower and French Ovens, contained up to 3.7 m (12 ft) of intact eighteenth-century deposits. The initial testing methodology entailed establishing a 1 x 1 m (3.3 x 3.3 ft) square unit along the northern wall of the impact area. The unit was excavated to a depth of 1 m (3.3 ft) to acquire a stratigraphic profile. Clean eighteenth-century fill, comprised of layers of redeposited subsoil, organic material, and stones, was encountered. Once the walls of the unit were documented, a monitored backhoe trench located off of the southern wall of the unit was also excavated to a depth of 1 m (3.3 ft). This trench provided a clearer picture of the composition and slope of the stratigraphic fill layers across the North Ramp. Once the trench profiles were documented, the remainder of the soil south of the unit was removed to a depth of 1 m (3.3 ft). The phased process of excavating a unit followed by the excavation of two trenches was repeated an additional three times, at which point bedrock was encountered.

With two notable exceptions, the eighteenth-century deposits encountered in the North Ramp Extension area were comprised of redeposited clay subsoil that was set down to provide support for the walls of the King's Storehouse and the East *Terre-plein*. In the North Ramp, the intact portion of Feature 40 was determined to be extensive—measuring at least 4 m (13 ft) in width and 8 m (26 ft) in length. The remnants of tree roots could be discerned, clearly indicating the original ground surface and marking the location of trees that had been cleared to construct the fort. The burned soil

feature contained a rich French midden deposit containing primarily faunal material.

Another substantial feature, an east-west aligned trench that cut through the burned ground surface and measured approximately 1 m (3.3 ft) in width, was determined to be a builder's trench for the construction of the stone drain. The trench measured approximately 1.25 m (4 ft) in depth and contained a variety of different fill, including several lower layers of clean redeposited subsoil (Figure 3.7). The uppermost soil layers within the trench fill contained extremely productive deposits of faunal material consisting mostly of articulated pigs' feet. Encountered at the base of the builder's trench was a well-constructed stone and mortar drain, which was built directly into the cut and modified bedrock and located several feet below the burned ground surface.

## Northeast Bastion

The archaeological investigation began with the clearing of coal ash, which was deposited over eighteenth-century soils during the 1940s reconstruction (Figure 3.8). This was done to raise the surface of the Northeast Bastion and the East *Terre-plein* to the artificial height of the reconstructed *terre-plein*, which was situated approximately 1.5 m (5 ft) higher than the original 1750s *terre-plein*.

In 2005, after the coal ash fill was removed, several 1-meter-square units were established on the top of the eighteenth-century ground surface. It was considered



**Figure 3.8.** 1940s photograph of East *Terre-plein* and Northeast Bastion reconstruction.

Courtesy of the Fort Ticonderoga Association.

likely that some upper portions of eighteenth-century surfaces were partially truncated during the early and mid-twentieth-century reconstruction efforts. Numerous deposits and features, including an extensive east-west aligned trench, a large pit, a hearth, a wall repair trench, mortar concentrations, work surfaces, burned soils, and a concentration of faunal material were encountered in the top several feet of fill (Figure 3.9).

The remainder of the uppermost 1 m (3.3 ft) of fill was monitored and removed by backhoe, with the soils reserved for later screening. Several of the units were reestablished at the lower level and excavated down another several feet. Near the base of the excavations, an *in situ* cedar tree stump was identified encased within the clay subsoil, which has potential to provide details about the local environment in the early to mid-eighteenth century.

### King's Storehouse

In 1999 and 2000, archaeological investigations were conducted within the King's Storehouse and the French Ovens—located beneath the Northeast Bastion at the northern end of the storehouse. When the French abandoned the fort, their final maneuver was to set the Powder Magazine to explode. Because the King's Storehouse was so heavily damaged from this action, neither the English nor the Americans apparently ever repaired this section of the east flank.

In the King's Storehouse, eighteenth-century material and features were present below 1920s reconstruction fill and later twentieth-century deposits. Approximately 65 sq m (700 sq ft) of the King's Storehouse were



**Figure 3.9.** Top: Northeast Bastion before wall removal. Bottom: Encased stratified cultural deposits and subsoil evident after wall removal.

excavated or cleared to bedrock, revealing original French stone walls, 10 drill holes, an intricate drainage system utilizing stone, clay, and crushed mortar, wooden sleepers resting on a base of stone and soil fill, and other period construction fill and deposits (Figure 3.10). The archaeology revealed a close correlation between what was found in the ground and descriptions of French construction methods detailed in fort correspondence and military reports.

The 1999–2000 investigation included the documentation of the two brick ovens that date to the early period of French construction. Test units in the French Oven Room and the Stair Tower directly to the south encountered the alignment of French drains, which had been disturbed during reconstruction. The original drain channel was evident, but in the early twentieth century, the capstones had been displaced and haphazardly replaced without mortar.

In 2005, the remaining sections of the French drains in the King's Storehouse were re-exposed and documented prior to their removal. The visible masonry in the storehouse was generally attributed by Fort personnel to be part of the 1940s reconstruction. However, large sections of the standing structure, including the entire lower wall sections, were determined to be of eighteenth-century construction, and documented prior to removal.

### Southeast Bastion

While the initial archaeological assessment of the Southeast Bastion suggested that it had been quite heavily disturbed, a number of significant features and deposits survived. On the east side of the bastion, a remnant drain system was identified, built directly



Figure 3.10. Original walls of the King's Storehouse.

above bedrock, and situated below soils that had been disturbed during reconstruction. The drain on the east side of the wall was comprised of two parallel lines of unmortared stone separated by a narrow open channel, which directed water from the powder magazine downslope to the southeast. This was an open drain, with no evidence that it ever had been covered with capstones.

Another drain similar in appearance and method of construction was identified on the north side of the wall near its juncture with the East Curtain Wall. Originally, the two drains were most likely connected, however, there was previous disturbance at the corner of the bastion where they would have intersected. These drains may have been a temporary construction feature employed to divert water to keep it from undermining the foundation of the bastion (Figure 3.11). At some later point in construction, these areas were filled with earth and encased behind masonry walls. Situated above this drain were thick deposits of intact fill and a wall repair trench containing hundreds of lead musket balls and several iron grapeshot.



Figure 3.11. Drain encased within the parapet walls within the Southeast Bastion located north of the Powder Magazine.

### FORT TICONDEROGA: East Flank Profile

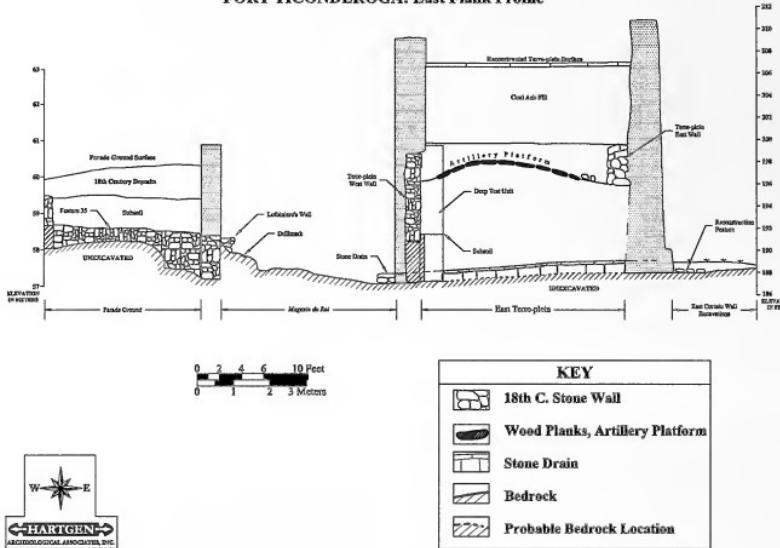


Figure 3.12. East Flank Profile showing the Parade Ground, the King's Storehouse, and the East *Terre-plein*.

#### East *Terre-plein*

The East *Terre-plein* extends approximately 32 m (105 ft) along the East Curtain Wall and occupies 5.6 m (18 ft) of space between the wall and the King's Storehouse. In 2001, excavations on the *terre-plein* identified intact features from the earliest years of fort occupation, including a French-era wooden artillery platform, a palisade trench line, occupation surfaces, several meters of fill, a burned ground surface, and masonry walls. The education center plans entailed the preservation of a 9 m (30 ft) section around the gun platform, with the remainder of the *terre-plein* slated for removal.

The East *Terre-plein* was one of the most nearly complete East Flank structures, encapsulating original fill up to 3.7 m (12 ft) deep and containing features and work surfaces within original eighteenth-century walls (Figure 3.12). The archaeological methodology for mitigation of the East *Terre-plein* is outlined below, followed by an archaeologically informed reconstruction of how the *terre-plein* was laid out, constructed, and functioned.

The archaeological investigation began with clearing

the coal ash, which in the 1940s had been used to fill the gap between the original and reconstructed *terre-plein* surface. Like the Northeast Bastion, it is believed that the top of the eighteenth-century soils had been truncated during earlier reconstruction efforts. The cleared clay ground surface revealed numerous military artifacts, including grenades, 8- and 12-pound cannonballs, and visible features.

Three east-west aligned trenches and one north-south trench measuring 17 m (56 ft) in length were excavated in order to acquire stratigraphic profiles across the *terre-plein*. The profiles indicated that the top 60 cm (2 ft) of fill contained artifacts, features, and occupation surfaces. Below this depth, the fill was primarily comprised of redeposited subsoil, often mixed with stones. The area was divided into 2-m (6.7-ft) blocks with the upper layers excavated within quadrants in each block. When occupation or work surfaces were encountered, larger areas were opened for excavation.

The next phase of work entailed the documentation of five mechanically excavated trenches, aligned east-west across the *terre-plein*, to investigate the cultural fill



Figure 3.13. Feature 40—the original burned ground surface encased within the East *Terre-plein*.

to bedrock. Mechanical excavation of the trenches was halted when significant features were encountered, such as Feature 40, a thin lens of burned soil directly above subsoil. The burned surface was identified throughout the East Flank and found to contain very rich faunal and midden deposits. On the East *Terre-plein*, more than 30 sq m (323 sq ft) of the original burned ground surface were excavated, revealing features, work surfaces, and stone clusters (Figure 3.13).

## INTERPRETATION

The archaeological interpretation of the East *Terre-plein* begins with the historical documents that detail the 1755 building campaign. Official reports and letters from that period, many of which were translated by Westbrook (2000), document specific activities, building materials and methods, and the overall progress of construction at Carillon. These are complemented by eighteenth-century military manuals, which provide information on the accepted engineering methods and standards of the day. Viewed within this historical context, the information acquired from the excavated features allows an archaeological reconstruction of the manner in which the East *Terre-plein* was constructed.

The progress of fort construction was detailed in official reports by the engineer and documented in contemporary letters. After the first construction season, Lotbiniere wrote to the French Minister of War, "We were not prepared to build in stone, having neither the material assembled nor the workmen. We were therefore obliged to line the works in oak which fortunately was plentiful on the spot" (Westbrook 2000:92–93). The

progress of fort construction was scrutinized by a number of military officers and scouts who criticized Lotbiniere's engineering. Monsieur de Bourgainville noted that the engineer had built a fort with horizontal timbers in a country where stone, limestone, and sand were found in abundance . . . where there is doubtless wood, but men are lacking to cut it, square it, haul it, where there are neither wagons nor horses" (Westbrook 2000:12). Another detractor complained that the timber fort, constructed *piece-sur-pièce* and seated on rock, would not deter an enemy for very long, and noted that "they had to go in search of timber at least half a league, and then it takes twenty men to haul each piece (Westbrook 2000:14).

In Lotbiniere's defense, the construction of the fort began in mid-October 1755. His first order of business was to provide winter quarters for the workmen. It was reported that by the end of the first season, four barracks had been built within the outline of the walls, and 21 small board huts outside the fort had been erected (Hamilton 1995:39).

The archaeology revealed crucial activities that were undertaken in the very first year of construction that were not detailed in historical documents. Archaeology demonstrates the sequence of French land alteration, which was initiated with the removal of topsoil from the entire Fort area down to the stable clay subsoil. Any remaining organics were burned off. It was at this level surface that the French surveyed and laid out the precise locations of stone structures, earthworks, and drainage systems. The work crews then cut trenches into the subsoil to bedrock in order to construct the masonry walls and drains.

The excavations on the *terre-plein* and the East Flank produced a number of French masonry tools and work implements, including shovels, mattocks, hoes, spikes, and wedges. These tools were lost or broken during the 1750s construction and subsequently were discarded within the fill. These implements offer insight into construction methods and work activities, as well as providing information on the type of supplies and tools the soldiers used to build the fort.

Many of the archaeological features highlight the fine details and craftsmanship practiced by the masons and other fort workers. A well-defined and straight linear trench was encountered during excavation, which extended in an east-west alignment across the southern end of the *terre-plein*. At the base of this very straight-sided 1.5-m (5-ft) deep trench was an intact French drain (Figure 3.14). This substantial stone and mortar drain is part of an elaborate system that drained the entire East Flank. It continued west across the width of the *terre-plein*, into the King's Storehouse, connecting to the Parade Ground and northward into the French



**Figure 3.14.** Profile of drain trench adjacent to the exposed drain capstones.

Bakery in the Northeast Bastion, leading into the North Ramp and the North *Terre-plein* beyond, and southward to the Southeast Bastion.

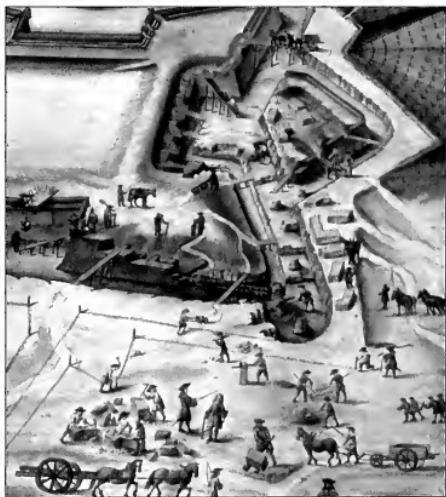
The East *Terre-plein* drain was solidly and expertly constructed. The mortared flat capstones were removed to reveal the rectangular cut stones bordering the central open drain channel. These features indicate that the French recognized the complex drainage issues at the site, and prioritized construction of this intricate system. After the drainage system was in place, the construction of the *terre-plein* walls began.

While the *terre-plein* was a structure that had to be built upward, it was bordered by exposed bedrock located within the King's Storehouse to the west, and on the fort exterior east of the East Curtain Wall. In both of these areas, bedrock had been removed, as evidenced by the numerous drill holes identified during excavation. On the *terre-plein*, slightly sloping or stepped trenches were cut through the burned ground surface along the proposed north-south alignments of the east and west walls. The *terre-plein* soils remained intact, while the soils to the east and west were cut away. The

lowest courses of stonework were constructed from the exterior. The stone walls were mortared on bedrock, and built upward directly against the standing subsoil of the *terre-plein*. After the walls had been raised several feet from the exterior, the construction of walls was shifted to the interior of the structure. The French engineers had to devise a system to allow filling in of the *terre-plein* while simultaneously constructing the walls from the interior. An eighteenth-century illustration depicts an idealized version of fort construction (Figure 3.15). The archaeological excavations demonstrated how this was actually accomplished at Fort Ticonderoga.

Construction of the *terre-plein* entailed the incremental layered deposition of soil and stones. The redeposited subsoil encountered in the lower levels of the *terre-plein* fill likely originated from the clearing of the storehouse and fort exterior. Initially, the soil fill was deposited along the centerline of the *terre-plein*, which created a central ridge of mounded soils sloping downward to the east and west (Figure 3.16).

While each of the east-west archaeological trench profiles was unique, all revealed the same general pattern of soil deposition with mounded soils in the center, and

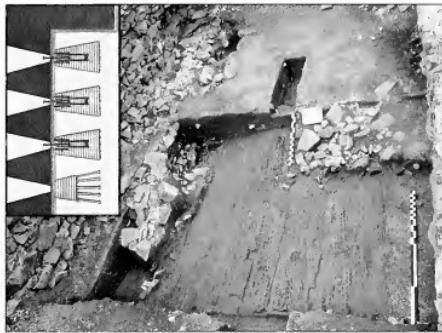


**Figure 3.15.** The construction of the outer perimeter of a fort, from Masse ca. 1730.



Feature 40 Occupation Surface

**Figure 3.16.** South Profile of East *Terre-plein* with Feature 40 occupation surface.



**Figure 3.17.** Excavated artillery platform on the East *Terre-plein*. Inset shows standard artillery platform as depicted in a ca. 1700 Vauban military manual.

trenches at the edges of the *terre-plein*. It was within these trenches that the French masons established a work space in which to build the walls. Evidence in the form of mortar deposits and piles of unused stone indicate the vertical and horizontal locations of these temporary work surfaces.

French documents indicate that by May 1757, approximately 70 to 80 of the total 450 troops on the site were tapped for labor on construction of the fort each day. Workers continued the effort to fill the ramparts, parapets and *terre-pleins* with earth, or *remblais* (Westbrook 2000:18). Other workers mined rock and cleared away stone from the two future demi-lunes or hauled timbers necessary for their construction (Westbrook 2000). A criticism was lodged at the time of construction that certain buildings, including the King's Storehouse, rose higher than the exterior parapet walls. A detractor noted that "on the two fronts which are open to attack, a half-moon has been constructed so high . . . it entirely covers the embrasures of the curtain" (Romelyn Brodhead 1858). In 1757, a British spy wrote (sic), "Their Barracks being much higher than the parapet & cover'd with boards may be soon sett on fire by Carcass or red hot Shot" (Westbrook 2000). Nonetheless, it was on this surface that the French built a wooden artillery platform.

Archaeological investigation revealed that the original French *terre-plein* surface was established approximately 2 m (6.7 ft) above the Feature 40 burned ground surface, which was situated only about 30 cm (1 ft) above the Parade Ground surface. Excavations uncovered a French artillery platform at the northern end of the *terre-plein*—a square platform composed of 10 1-foot wide planks nailed to three sleepers (Figure 3.17).

How does the East *Terre-plein* platform conform to the accepted military engineering plans of the day? In many ways, the platform was constructed as outlined in the manuals, but with minor adjustments. Thick planks of wood, measuring 31 cm (1 ft) broad, were placed parallel to the parapet and nailed to wooden sleepers. At the base of the wall was a 15-cm (6-in) wooden *heurtoir*, a beam set in place to offset the recoil of the gun and protect the wall. The angle of the platform was integral to correct artillery platform construction. To offset the recoil, the ground on which the cannon sat was raised slightly, angling downward toward the parapet. This platform appears to have been generally constructed in this manner. However, the clay soils beneath the platform, especially on the outer edges of the *terre-plein*, have settled over time so that the profile of the platform was arched.

It is in size and shape that the wooden artillery platform diverged most from the accepted norm. The East *Terre-plein* platform is rectangular, just off of square. Military manuals differ on the exact sizes, measuring between 5.6 to 6.2 m (18 to 20 ft) in length, but a trapezoidal platform is stipulated with the shorter dimension of the parapet side near the embrasure. It is likely that the size and shape of this platform was constrained within the limits of the too-narrow East *Terre-plein*. A contemporary observer noted that at Carillon, "The ramparts are but 13 or 14 feet wide, and the platforms consequently . . . so short that the recoil at each discharge makes the gun run off. Should (a gun) be dismounted . . . it becomes necessary to fire those next it, in order to convey another there" (Romelyn Brodhead 1858).

The excavation indicated that the wooden artillery

platform was associated with Feature 29, a hard-packed and relatively level occupation surface, which contained brick, faunal material, glass, tin enameled ware, and personal items, as well as small pits and deposits of charcoal and ash.

This occupation surface indicates that this northern portion of the *terre-plein* was used intensively during the French occupation. This occupation surface was covered with a layer of mortar used to level the artillery platform and other exposed surfaces. This mortar level became the next actively used occupation surface. It extended across the northern two-thirds of the *terre-plein*, and contained many features, including several pits, and a large number of artifacts (Figure 3.18). Eventually, the mortar level, too, was covered over with fill in order to raise the height of the *terre-plein* yet again. One foot of intact fill was encountered overlying the mortar surface, but any subsequent eighteenth-century surfaces had eroded away in the nineteenth century or were removed during the reconstructions in the twentieth century.

Overall, the French constructed a strong fort that withstood 250 years of exposure to the elements, battles, and attempts at reconstruction. However, the recent archaeological excavations uncovered collapsed walls that resulted from a combination of factors, including expediency in construction, the use of faulty materials, substandard design, and possibly from the destruction of the powder magazine in 1759. These factors, taken in tandem with the construction details elicited from *terre-plein* features, suggest the East *Terre-plein* was still under active construction when the British took the fort in 1759. This situation, where the French were hurriedly attempting to complete an essential protective curtain wall and stable surface for cannon emplacements, possibly under threat of impending British attack, explains the substandard work that was identified archaeologically.



Figure 3.18. Mortar occupation surface.

The *terre-plein* contained a number of different types of fill, including large stones, sand, and concentrations of rocks and mortar. These materials did not conform to the hard-packed rammed earth fill called for in eighteenth-century military structures. In 1756, the French commander De La Pause wrote of Carillon—"here was too little earth to fill up the parapet; so they employed instead many small stones in order to make up for (the lack of) earth; they did the same thing with small stones on the last layer of the glacis and the parapet, which they didn't cover with earth, so that in the event of attack, it would be murderous for those who are behind it." (Wesbrook 2000:11).

The construction design for this structure did not entail the use of counterforts, which are architectural structures built against a wall for added support. It is surprising that counterforts were not used to reinforce the thin walls of this important fort structure, considering massive counterforts were encountered within the North Demi-Lune, another earth-filled structure. The importance of counterforts in construction was indicated in a letter to Lotbiniere from Vaudreuil. He wrote: "The construction of a new casemate along the curtain wall where one finds the main portal . . . Both should be dressed with good masonry from the bottom of the ditch to the height of the cordon and supported by counterforts spaced as Mr. Lotbiniere sees fit, with 8 to 10 foot wide parapets at the top, dressed both inside and out with wood, and well tied with dove-tailed timbers" (Lotbiniere Papers, New York Historical Society).

Obviously, the engineers and masons at the fort possessed the expertise required to plan and construct substantial stone wall supports, which were essential for the stability of the structure. It appears that a conscious decision was made during construction not to use counterforts in the East *Terre-plein*. This decision could have resulted from a combination of factors, including the need to expedite construction, the lack of stone material at the time it was built, and the use of inferior materials. The absence of counterforts and the use of other non-standard construction techniques suggest the *terre-plein* was constructed somewhat haphazardly. The construction of this earthen structure did not possess the fine workmanship that was demonstrated in the construction of the earliest features at the site, such as the stone and mortar drains.

Excavations uncovered the *terre-plein*'s west wall, which was found to bow inward rather than extend in a straight north-south alignment. It was determined that while the slumping and splitting of the west East *Terre-plein* wall occurred after the fort was abandoned, the source of the problem lay in the original French construction methods. The northernmost east-west profile



**Figure 3.19.** West wall of the East *Terre-plein* showing stepped construction.



**Figure 3.20.** North profile of East *Terre-plein* showing trench and collapsed wall.



**Figure 3.21.** Plan view and profile of Feature 4.

line clearly shows that the west wall was constructed in steps (Figure 3.19).

The lowest level of stonework was constructed directly onto the bedrock, and placed directly against the subsoil. The higher courses of stonework were thicker, increasing in width toward the interior of the *terre-plein* where they were placed directly against the uncompacted sloping layers of fill. This method of construction basically created an inverted pyramid of stonework and placed greater weight and pressure toward the interior of the unstable *terre-plein* soils, causing eventual collapse.

On the east side of the *terre-plein* several related features and a collapsed section of wall were identified. Within several trenches and units, it was evident that the top several feet of stonework on the East Curtain wall fell or shifted inward along the southern end of the *terre-plein* (Figure 3.20).

What caused a wall collapse so early in the life of the fort? A strong possibility is the catastrophic 1759 explosion of the powder magazine, located directly adjacent

in the Southeast Bastion. Related features provide evidence for how such an event may have changed the use of the *terre-plein*. At the southern end of the *terre-plein*, the position of the stonework indicates the wall collapsed into an open area, suggesting that the trench along the wall was open, possibly for wall construction or repair. Further to the north, the east wall shifted but did not topple. In this section, Feature 4 was identified on the western side of the trench. In plan view, Feature 4 was evident as a linear outline of mortar and stone with numerous cannonballs. In profile, the mortar and stone fill of Feature 4 resembled a filled-in post trench (Figure 3.21).

It is hypothesized that where the wall failed or threatened to collapse, the eastern edge of the *terre-plein* was cordoned off for repairs. This may have been accomplished through the erection of temporary shoring or a fence palisade along the western side of the trench. A

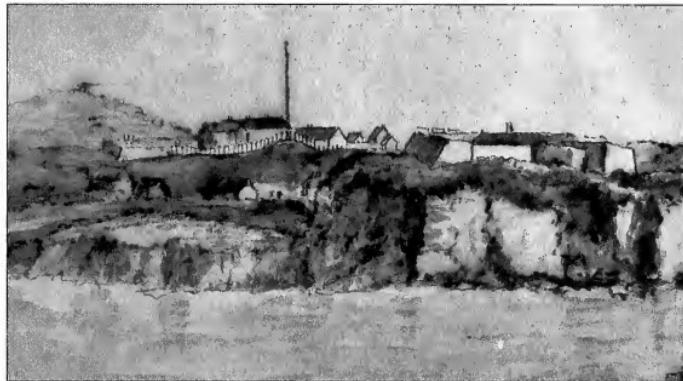


Figure 3.22. Detail view of Fort Ticonderoga from H. Rudyard 1777.  
Courtesy of the Fort Ticonderoga Association.

period watercolor indicates the presence of a wooden palisade located near this locale on the *terre-plein* (Figure 3.22; Rudyard 1777).

A second curtain wall was then built farther to the east, encompassing the collapsed wall. This allowed the removal of the barricade, and the resulting trench was filled with stone, mortar debris, and cannonballs. The larger *terre-plein* then continued to be used, as indicated by the presence of eighteenth-century fill overlying the collapsed wall. The open trench was subsequently filled with clay containing wood chips, ash, burned soil, and charred posts or logs. The presence of substantial pieces of burned wood suggests that the barricade posts were burned on the *terre-plein*. Over the next 20 years there may have been severe deterioration of the East *Terre-plein* and Southeast Bastion, as suggested by a Revolutionary War-era map of the fort that depicts the southern portion of the *terre-plein* and magazine either as cordoned off or non-existent (Figure 3.23; Wintersmith 1777).

The initial study of the East *Terre-plein* features provides insight into just one facet of one structure's construction at the fort, which can be brought to life through archaeological investigation. The preliminary interpretations presented here focus on how the East *Terre-plein* was constructed, offer a glimpse of the potential of the archaeological data from the fort excavations, which will be strongly enriched by the completion of future artifact and soil analyses. There is the potential for so many other stories to be told about the various fort structures, and about the diverse people—eighteenth-century French, Native American, British,

and American forces, nineteenth-century travelers and tourists, and twentieth-century reconstruction workers—who built, lived, worked, and died at this fort.

The fort's history of nearly 250 years of construction, demolition, warfare, maintenance, reconstruction, and destruction has only recently been accompanied by detailed archaeological investigations, which will allow a more comprehensive understanding of its construction

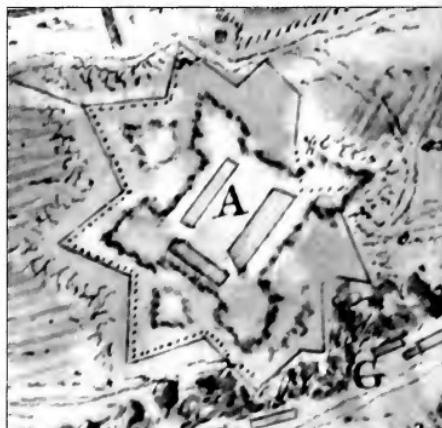


Figure 3.23. View of Fort Ticonderoga by Wintersmith 1777.  
Courtesy of the Fort Ticonderoga Association.

and use. Intensive archaeology has provided evidence that illuminates the original French construction methods and shows unique alterations in design. While the fort was originally built as a permanent symbol of French power on the landscape, archaeology has shown that it was a dynamic structure—one that was viewed by its creators and stewards as a work in progress. And so it has been since the land was cleared in 1755, and so it continues today.

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## AN OVERVIEW AND INTERPRETATION OF THE FORT GAGE EXCAVATIONS AT LAKE GEORGE, 1975

Paul R. Huey

### INTRODUCTION

Fort Gage was a redoubt occupied by Provincial troops at Lake George in 1758. Threatened by development and leveled by a bulldozer, the site nevertheless yielded valuable information through partial excavation. Full excavation of the site could not be completed before development occurred. Additional research since publication of a report on the site in 1985 has identified the origin of a marked clay pipe stem found at the site. The mark is the coat-of-arms of the County of Cheshire, and the mark was used on stems by Chester pipe makers in the eighteenth century. Fear of attacks by French and Indians on small groups venturing outside the fortifications to hunt or fish probably explains the absence of fish or bird remains and the low percentage of deer bones. The absence of any ceramics at the site evidently reflects the orders that each soldier was to carry minimal baggage and no more than a blanket and a bearskin.

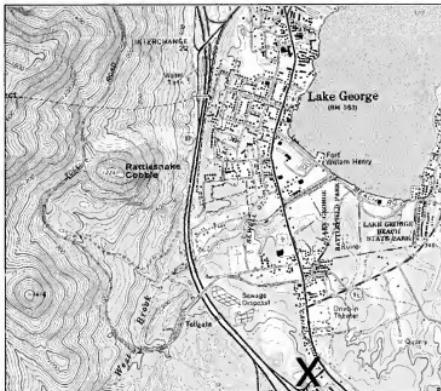


Figure 4.1. General location map of the site of Fort Gage.

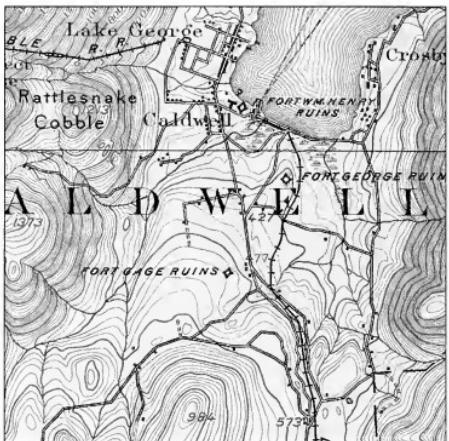
### HISTORICAL BACKGROUND

The site of Fort Gage was well known to local residents of Lake George for many years. Despite its well-preserved and clearly visible earthen ditch outline, however, the historical origins of this site were not clearly understood. The fort was located on a high hilltop about 1.61 km (1 mile) south of the site of Fort William Henry and just north of Exit 21 of the Northway (Figure 4.1).

It is said that in 1812 "some portion of the wood-work" of the fort still remained (De Costa 1871:6). In 1830 the historian Jared Sparks visited the site, which, he said, "the people now call Fort Gage" (Sparks 1830). Disturnell (1842:97), Lossing (1860:112), Marvin (1853:43), Stone (1868:296), DeCosta (1871:6), Stoddard (1881:32; 1887:31), Seelye (1896:76), and other historians noted the site from the 1840s through the end of the nineteenth century. F. W. Beers clearly marked the site in his atlas for Warren County in 1876 (Beers 1876:66), and

during the 1870s the site was marked with a simple sign for travelers who passed by on stagecoaches (Carpenter 1914:57). The May 1897 edition of the U.S. Coast and Geodetic Survey Glens Falls quadrangle precisely marked the "Fort Gage Ruins" (Figure 4.2). By 1907, when S. R. Stoddard published his map of Lake George, the east portion of the site of Fort Gage had been destroyed by the cut for the Hudson Valley Railway, a trolley line. Stoddard nevertheless took pains to draw the outline of the remaining earthen work carefully (Stoddard 1907). In 1940, the site was a wooded area known as "Fort Gage Park" and was noted in the W.P.A. New York guidebook (Anon. 1940:559).

In 1776, during the Revolution, the Americans evidently posted "a strong guard" there each night (Stone 1868:296), and British troops briefly occupied the site in 1777. Lieutenant James M. Hadden of the Royal Artillery, in his journal published in 1884, told of "clearing a post on Gage's Hill" on July 28, 1777 (Rogers



**Figure 4.2.** Detail from the 1897 USGS 15-minute Glens Falls quadrangle showing the "Fort Gage Ruins."

1884:107). Lieutenant John Enys of the 29th Regiment, with other British troops attacking the Americans in Fort George in October 1780, recorded that "when we had got on the Clear land Called Gages Heights we for the first time got Sight of the fort [George]. On their Seeing us very thick on the Hill they fired three Shot from a Six pounder which was in the fort at us, without any effect" (Cometti 1976:45). The British planned to return to "Gages Hill" and fortify it the next spring, but this probably did not happen (Hastings 1902:773).

Stoddard in 1881 was perhaps the first to suggest that Fort Gage was associated with Abercrombie's army in 1758 (Stoddard 1881:32). Seelye in 1896 was more definite in her attribution of the site as a British camp in 1758 (Seelye 1896:76). The British expedition against Crown Point in 1758 was a total failure. The army of 12,000 troops, the largest ever assembled in colonial New York, attacked the French at Ticonderoga on July 8 in a series of frontal assaults against only about 3,000 well-entrenched French defenders. The British lost heavily, and the remainder frantically retreated back to the head of Lake George where they began building a heavily fortified camp. The morale of the British and Provincials was shattered, and because of their loss of confidence they did nothing more that summer. The brilliant French defense of Ticonderoga was the last significant French victory of the war, however, for less than three weeks later Louisbourg surrendered to Amherst, and a month later Fort Frontenac

on Lake Ontario also fell (Anderson 1984:17).

Extremely fearful of French attack, Abercrombie began the establishment of his fortified camp at Lake George on July 12 (Cleaveland 1959:200). By July 16, the British Light Infantry were encamped on the road leading south from Lake George, and they were ordered "to Suffer no Persons or Carriages to pass them that is not under the Care of an Escort" (Moneypenny 1970:445; Montresor 1758:July 16). On July 26 troops from Colonel Whiting's Connecticut regiment were ordered "to go clearing a place for to build a breast work on a small hill," which was south from the southwest corner of Abercrombie's fortified camp, and this breastwork may have become Fort Gage (Spicer 1911:398). The next day Gage's Light Infantry, Rogers' Rangers, and other regiments were ordered to encamp in the area between the fortified camp and the advanced posts (Montresor 1758:July 27). It is the site of this camp of Gage's Light Infantry, in fact, that was excavated by Collamer & Associates, Inc., at the Birch Avenue Substation site (Collamer & Associates, Inc. 1994).

On August 15, 1758, a large work party was sent to an "eminence" .8 km (0.5 mile) from the fortified camp "in order to Build a Block House & plant some Cannon," but this work was not completed (Rea 1881:181, 186). This may have been at the site of Fort Gage, and a reference on August 24 to "the Provincial Redoubt . . . on a very high Narrow Ridge . . . about ¼ mile from the SW corner of our breastwork" also may refer to Fort Gage (Cleaveland 1959:214). The very accurate map of the fortified camp at Lake George drawn by Andrew Frazer in 1758 in the collection of the Fort Ticonderoga Museum clearly shows Fort Gage as a "Provincial Light Infantry" post located on the west side of the "Road to Ft. Edward." This map also clearly identifies the Birch Avenue Substation site as the Light Infantry camp site of 1758 (Frazer 1758). Finally, in late October, Abercrombie with his army left Lake George after burning the fortifications and buildings that he had built and sinking the small fleet that he had also constructed (O'Callaghan 1858:885, 888).

## ARCHAEOLOGICAL INVESTIGATION

Archaeologists of the New York State Office of Parks and Recreation Archeology Unit first visited the site of Fort Gage in July 1972. The site was covered with trees and brush, but the view northward across Lake George was spectacular. The remains of earthen fortifications were well preserved and clearly visible, despite the damage from construction of the railroad on one side and the Northway on the other. The Northway is Interstate 87, the highway that runs from Albany north

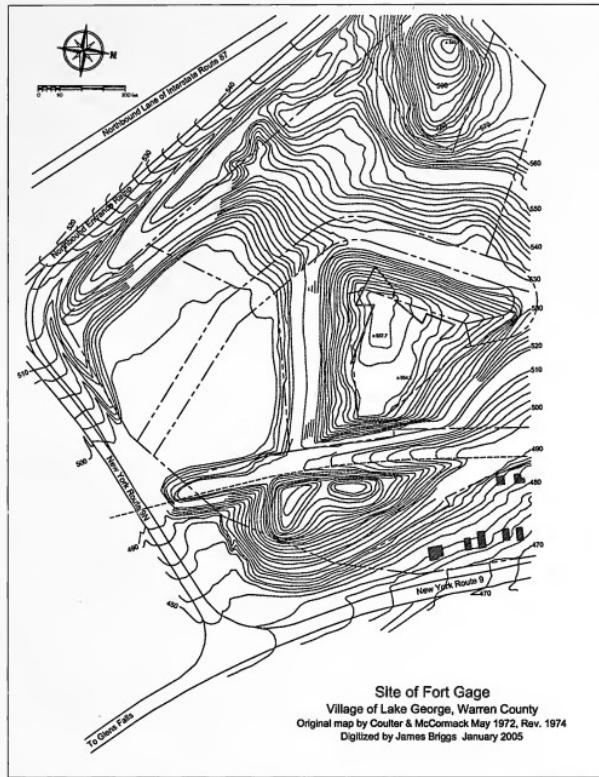


Figure 4.3. Contour map of the site of Fort Gage as surveyed in 1972.

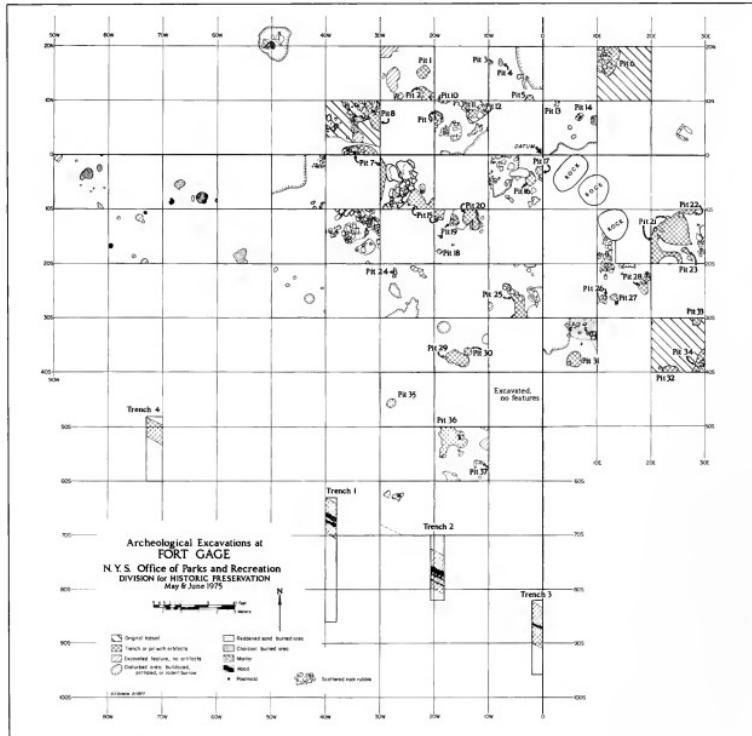
to Canada, and was built from 1957 to 1967. The walls and moat of Fort Gage were intact on the south and northwest sides, but not on the northeast (Figure 4.3). The fort appeared to have been triangular, with half bastions at the points. The owner of the property had been contacted and encouraged to preserve this unique site as an asset in any future development, and friendly discussions with the owner continued through May 1973. In November 1974, however, a new owner of the property, intending to build a new motel, unexpectedly bulldozed the site of the fort, leveling the earthen walls and grading the soil. In February 1975 the Adirondack Park Agency requested the Office of Parks and Recreation to conduct test excavations at the site, and in

March the property owner granted permission to do this work. Soon, arrangements also had been made with Jim Walsh for the Auringer-Seelye Chapter of the New York State Archaeological Association to provide much-needed assistance with the project.

The excavations were conducted to assess the significance and remaining integrity of the site following the bulldozing and to obtain a sample of artifact materials for comparison with other French and Indian War sites, such as those at Crown Point. The excavations commenced on May 2, 1975, and continued through most of June (Figure 4.4). A grid system of 3.048-m (10-ft) squares was laid out, and alternate grid squares were excavated, ensuring continuous profiles and a



**Figure 4.4.** Excavations at the Fort Gage site, May 1975.  
Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.



**Figure 4.5.** Plan of the Fort Gage excavations.

50-percent sample within the excavation area. With the excavation of 28 grid squares and four short trenches, it is estimated 14 percent of the total site of the fort was excavated, based on projected alignments of the walls and moats (Figure 4.5). The size of the fort area was estimated to be roughly 3,720 sq m (400,000 sq ft), based on the position of the south moat and still-visible traces of the moat at the northwest bastion (Huay 1976:1).

It soon became clear, however, that the bulldozer had severely damaged the site. Stone walls had been disturbed, and in many areas evidence of occupation had been entirely stripped away. Nevertheless, the largest feature was centrally located and consisted of mortared foundation walls including large stones and boulders. This may have been the block house, the construction of which commenced on August 15, 1758. In this area were



**Figure 4.6.** Square 10S 30W, with the surfaces of Pits 7 and 15 exposed (scale in inches).

Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.



**Figure 4.7.** Brass button (scale in inches).

Context No. 171, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation. Photo by Joseph E. McEvoy.



**Figure 4.8.** Wooden logs and ditch profile exposed in Trench No. 2 (scale in inches).

Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

many wine bottle fragments, pieces of mortar, and charcoal. There was evidence of hearths or fireplaces to the east and southeast, and one hearth contained nodules of red scorched clay impressed with marks of split wood lath or sticks probably from a chimney (Huey 1975:8). Six possible hearth areas were identified, which contained mostly unused musket balls, lead sprue trimmings, and partial gun flints or flakes. In addition, 37 trash pits were discovered and excavated (Figure 4.6). They contained many garbage bones, wine bottle fragments, marked clay pipes, gun flints, musket balls, buttons (Figure 4.7), and other objects.

The final phase of the excavations was a successful effort to locate the south moat of the fort. In the bottom of the ditch, and covered with soil that had partially filled the ditch, were found well-preserved remains of logs that had been laid horizontally and lengthwise in it (Figure 4.8). These logs, generally two or three laid parallel to each other, were positioned in a way that vertical posts could be set between them and anchored to resist being pulled out or pushed over. Faint traces of the round wooden stockade posts were still visible. The south moat was traced for a distance of at least 24.4 m (80 ft) (Huey 1976:3–5).

During the winter of 1975–1976, the Fort Gage artifacts were washed, sorted, and analyzed, and work on a report on the excavations commenced. This report was published in 1985 in the New York State Archaeological Association *Bulletin and Journal*, Number 90, where more detailed information about the excavations and the artifacts is presented (Feister and Huey 1985).

## INTERPRETATION AND CONCLUSIONS

The evidence indicates that soldiers lived in Fort Gage, cooking meals, casting bullets, and trimming gun flints. The gun flints are of the same type as those found at the Birch Avenue Substation site, where the Light Infantry camped in 1758 (Collamer & Associates 1994:21). An analysis of 293 faunal remains at Fort Gage identified 47 percent as pig and 43 percent as cow or ox. Surprisingly, only 5 percent were deer, and there were no fish or bird remains (Feister and Huey 1985:50). One reason for this may have been the fear of attacks by French and Indians on small groups venturing outside the fortifications to hunt or fish.

Other items relating to food consumption include a square dish or plate made of iron, discovered in a pit near the northeast corner of the excavation area (Figure 4.9). In another pit, about 7.6 m (25 ft) to the south, was found the top of a tin canteen. It is an unusually intact example. Wine bottle fragments and part of a pewter spoon were found, but remarkably, not a single ceramic



**Figure 4.9.** Iron dish in Pit 6, square 20N 20E (scale in inches). Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

sherd was retrieved from features relating to the occupation of Fort Gage in 1758. The same phenomenon is reported at the Light Infantry camp site of the same period at the Birch Avenue Substation site to the northwest (Collamer & Associates, Inc. 1994:20). At other French and Indian War sites occupied by British soldiers, even temporary hut sites, ceramics are relatively common, however. Delft, white salt-glazed stoneware, porcelain, and other wares were recovered from hut sites of the 1750s at Fort Edward (De Angelo 1995:103). Delft, white salt-glazed stoneware, and coarse stoneware were also found in Charles Fisher's excavation of hut sites at Crown Point occupied in 1759 by officers of Whiting's Connecticut regiment, the same troops who had built and occupied Fort Gage the previous year (Fisher 1995:71, 75). Outside New York, ceramics are also common at sites of French and Indian War forts. "Large quantities of ceramics" were found at Fort Shirley and Fort Pelham, two forts in the "line of forts" in northern Massachusetts occupied from 1744 to 1754 (Coe 2006:90–93). Ceramics at Fort Dobbs, a frontier fort in North Carolina occupied from 1756 to about 1761, included "a high percentage of ceramic forms related to the tea drinking ceremony" (South 1977:230). At Fort Edwards, a frontier fort in West Virginia built about 1750 and occupied during the French and Indian War by Virginia Provincial troops, a trash pit contained a wide variety of ceramics (Wittkofski 1990:31). Even at Fort Necessity in Pennsylvania, built and occupied by Virginia provincials and British regulars from South Carolina in 1754 but attacked and destroyed by the French nine weeks later, there was a white salt-glazed stoneware teapot lid (Harrington 1957:52–53). In 1757, Matthew Clerk, a soldier who was about to leave for

North America, wrote from London to his mother complaining of the "Variety of expensive necessaries I am obliged to provide." These included "a Camp kitchen which consists of pots pans dishes with a Great [grate] or Stove which puts up all into one another the whole not weighing above thirty pound" (Kingsley and Alexander 2008:47).

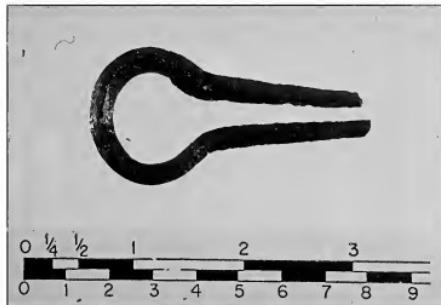
A reason for the absence of ceramics among the British troops at Lake George in 1758 was probably the orders issued by General Abercrombie early in the campaign. He specifically ordered "that no Person Officer or private, be allowed to carry more than one Blanket and a Bearskin, no sash nor Sword, a small Portmanteau to be allowed each Officer: even the General himself is allowed to carry no more than a common private's Tent. The Regulars as well as Provincials have left off their proper Regimentals, that is, they have cut their Coats so as scarcely to reach their Waist" (Anon. 1758a). Another soldier reported that instead of swords "we wear our Bayonets and Tomahawks" (Anon. 1758b). At Lake George in June, Captain Charles Lee of the 44th Regiment stood guard in his "Indian Dress," of which he was very fond. Lee had previously served in the Mohawk Valley, where he had been adopted by the Mohawks (Adams 1961:98, Withington 1907:476). Before the disaster of July 8 at Ticonderoga, however, much of the enthusiasm for adopting "the Method of Bush-fighting" had been the result of Lord Howe's spirited leadership, and he had forbidden officers to carry any extra baggage "as being only a useless Encumbrance to the Army" (Hamilton 1976:233–234). Other orders issued on July 1 at Lake George required constant surveillance by an officer "to see that the camp is kept clean, & all filth buried" (Moneypenny 1970:435, 444). The numerous carefully filled pits found at Fort Gage evidently reflect these orders (Figure 4.10).

Fragments of clay tobacco pipes and an iron Jew's harp represent pastimes and entertainment that must have helped the soldiers endure the stressful months of close confinement within their protective fortifications at Lake George. The Jew's harp (Figure 4.11) is nearly identical to examples of iron Jew's harps found at several other military sites of the French and Indian War period, including Fort Niagara; the First Fort at Boscowen, New Hampshire; and the wreck of the British ship *Boscowen* in Lake Champlain at Ticonderoga (Crisman 1985:430; Dupre 1985:124; Hayes 1967).

The 62 clay pipe stems are of special interest because every one of them has a bore diameter of 4/64 inch, a size which was predominant in English pipes of the 1750 to 1800 period (Harrington 1954:13). This consistency might suggest a single supply source or maker for the pipes, but in addition to fragments of heel-less R TIPPET pipe bowls, there was also a bowl fragment



**Figure 4.10.** Pit 11, square 10N 20W (scale in inches).  
Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.



**Figure 4.11.** Iron Jew's harp excavated from the feature in square 20S 40W.  
Catalog No. A.FTG.1975.118, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation. Photo by Joseph E. McEvoy.

with a TD mark. The latter mark, a TD within a cartouche impressed into the back of the pipe bowl, thus dates conclusively from as early as 1758 (Feister and Huey 1985:53–56).

One pipe stem has part of a distinctive impressed mark (Figure 4.12). The mark consists of three sheaves of wheat and a vertical sword, the unofficial city coat-of-arms of Chester, England. A more highly decorated pipe stem with the identical mark has been excavated in Drogheda, Ireland, and in Cheshire, England, at least 18 varieties of this “Chester” mark have been recorded (Rutter and Davey 1980:159, 161; Sweetman 1984:204–205). Abercrombie’s army in 1758 probably included a number of soldiers or perhaps a sutler from the City of Chester who could have brought this pipe to Lake George. One soldier who was there and was from Cheshire was Richard Mather, who on June 28 sent his will to his brother Thomas at Chester. He also sent news of Captain Charles Lee, also from Cheshire, telling about how Lee wore Indian clothing while on guard duty (Withington 1907:476–477). Lee was born in 1731 at Darnhall in central Cheshire, not far from Chester. He was in the 44th Regiment and was wounded at Ticonderoga on July 8. He returned to England in 1760 but later came back to North America and joined the American side in the Revolution. He became a general but was subsequently court-martialed and dismissed from service (Adams 1961).

While a sutler traveling with the army to sell merchandise to the soldiers could have supplied this Chester pipe, which found its way to Lake George in 1758, it appears to have arrived by way of New York City. Excavations at 175 Water Street in New York City in 1982 recovered a large number of Chester-marked clay

pipe fragments, many of them stems with the same sheaves of wheat and vertical sword Chester coat-of-arms mark. Only a few such fragments of Chester pipes have been found in excavations elsewhere in New York City, and these are probably from landfill deposits (Diane Dallal, personal communication 2008).

Most of the Chester pipes at 175 Water Street were found on the two lots that were part of water lot number six granted in 1736 to widow Anna Elizabeth



**Figure 4.12.** Pipe stem with the Chester coat-of-arms.  
Context No. 181, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation. Photo by Joseph E. McEvoy.

Schuyler, a merchant (Dallal 2003; Geismar 1983:68–69; Osgood et al. 1905:373–376). She was originally Anna Elizabeth Staats, born in 1690, a daughter of Dr. Samuel Staats. In 1713, she married Philip Schuyler in New York, and both she and her husband had in common as first cousin Margaretta Schuyler, a daughter of Johannes and Elizabeth (Staats) Schuyler of Albany. In 1720 Margaretta married her own first cousin, Philip P. Schuyler, who was also a first cousin of Philip's. Margaretta and Philip P. Schuyler lived at the Schuyler Flatts, the family farm just north of Albany. Philip Schuyler died about 1725, leaving Anna Elizabeth Schuyler a widow. In February 1758, Philip P. Schuyler died, leaving Margaretta a widow at the Schuyler Flatts (Christoph 1987:20, 46, 56). At that time, the Schuyler Flatts was the annual camping ground for British armies heading north to attack Crown Point. It is probable that Anna Elizabeth and the popular Margaretta Schuyler remained in contact, and when the Provincial troops of Abercrombie's army began to assemble at the Schuyler Flatts farm in June 1758, Anna Elizabeth Schuyler recognized a golden business opportunity and sent supplies for sale to the soldiers. She is known to have depended on a wide variety of trading partners and developed an extensive trading network. Her account book covering the period 1737 to 1751 is preserved in The New-York Historical Society (Geismar 2005:4–5; Zabin 2006:297–298). If her merchandise, including Chester pipes, was being sold to soldiers at Schuyler Flatts in 1758, she was competing with the flood of English merchants and sutlers who flocked to Albany with the soldiers and often followed the armies in this period (Armour 1965:260–261).

While it is unfortunate the site of Fort Gage was not preserved for public interpretation, limited archaeological excavations at the site resulted in the rescue of data valuable for comparative studies with other French and Indian War sites as well as for possible insight into a trading pattern. Lake George has one more motel, but it also has one less historic site. Fewer and fewer such sites remain in the Lake George area, and it is essential now more than ever to locate and identify those few remaining sites, protect and preserve them wherever possible, and as a priority, excavate those that cannot be saved.

## ACKNOWLEDGMENTS

The writer wishes to express special appreciation to Diane Dallal and Joan Geismar for their assistance and information about the Chester pipes from 175 Water Street in New York City. Joseph McEvoy of the Bureau of Historic Sites provided essential assistance with artifact conservation, identification, photography, and

illustrations, in addition to participating in the original exploration and subsequent excavation at the site. In addition, Rich Clauss of the Bureau of Historic Sites helped greatly with an electronic image. Finally, it was this writer's wife, Lois, who not only excavated at the site but also made certain that an article on the project was published in 1985, which has resulted in continuing interest in and use of the data in research.

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## A TALE OF TWO MIDDENS

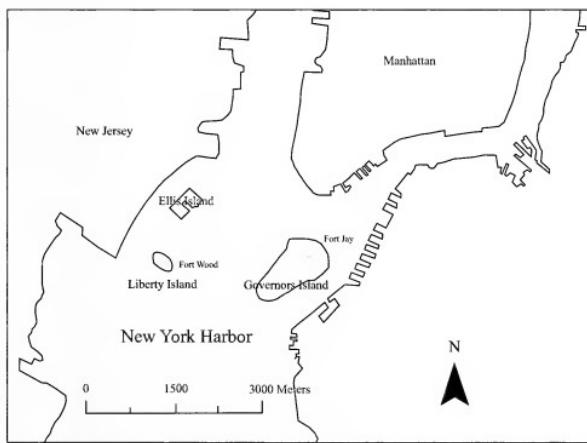
William A. Griswold and Tonya B. Largy

The years following the Revolution were uncertain ones for many in the newly created United States. Numerous problems, both foreign and domestic, confronted the fledgling democracy. Would the new nation be a confederation of states or would it have a strong federal government? Would there be a standing army? Would the new nation focus on agrarian issues or turn to industry for its future development? Even in times of economic and political uncertainty like the years following the Revolutionary War, market systems were developing and expanding—at least in New York City. This developing and expanding market system can be seen by comparing archaeological sites found on two New York Harbor Islands.

Liberty Island and Governors Island, two islands in New York Harbor, share numerous similarities: both are leftovers from the last glacial age; both were incorporated into the New York Harbor fortification system at the end of the eighteenth or the beginning of the nineteenth century; both are managed, or at least partially managed, by the National Park Service; and both contain midden deposits from previous military settlements (Figure 5.1).

Both islands also have very distinctive developmental histories. Governors Island was first conveyed to the Dutch in 1637 by the Manahatas Indians. The Dutch named the island “Nooten” or “Nutten” island for its abundant nut trees (Yocum 2005a:3). The British captured New Netherland, including the island, in 1664. It acquired the name “The Governor’s Island” in 1698 when New York Governor Cornbury built a pleasure house on the island (between 1702–1708). Although Major General William Pepperell’s regiment encamped on the island in 1755, no defensive

works seem to have been constructed to fortify the island until Colonel William Prescott’s regiment erected them in 1775–1776 (Yocum 2005a:11). While George Washington described these fortifications as impressive in 1776, they were nevertheless taken by the British with the Battle of Long Island in August of 1776 and not surrendered until 1783. Many improvements had been made to the island by the time of its surrender in 1783, including the construction of a captain’s and lieutenant’s barracks, kitchens, a guard house, convalescent hospital, gardener’s house, summer house, cattle barn, three wells, and a wharf (Yocum 2005a:16). In 1794, a larger effort was made by both the state and federal authorities to erect fortifications on the island during what became known as the First American System of coastal fortifications. The fortifications continued to be



**Figure 5.1.** Line drawing illustrating the location of Governors Island and Liberty Island within New York Harbor.



**Figure 5.2.** Detail from an untitled map showing the fortifications on Governors Island from a ca. 1776 map by Samuel Holland. Courtesy of the New York State Library, Manuscripts and Special Collections.

embellished during the 1790s and took on the name "Fort Jay" in 1798 (Figure 5.2). A second fortification, circular in appearance, named Castle Williams was later built on the western edge of the island by Col. Jonathan Williams during what was to become known as the Second American System of fortification in anticipation of the War of 1812. The island remained under the control of the Army until 1966 when it was taken over by the Coast Guard. The base was closed in 1997 and Fort Jay and Castle Williams were incorporated into the Governors Island National Monument by presidential proclamations signed in 2001 and 2003 (Yocum 2005a:xix–xx).<sup>1</sup>

Liberty Island, known by many appellations including "Minissais," "Hore," "Great Oyster," "Love," and "Bedloe's" Island, was first conveyed in 1667 by Governor Nicolls to a Captain Needham who then sold it to Isaac Bedloo, a successful merchant and office holder (Levine 1952:1–10). After Bedloo's death, the island passed down through various individuals until it was purchased by Archibald Kennedy, collector and receiver general of the Port of New York for use as a summer residence (Levine 1952:16–18). The island was used for various purposes over the next several decades, including a quarantine station, a pest house, and a place to house Tory refugees (Levine 1952:19–23).

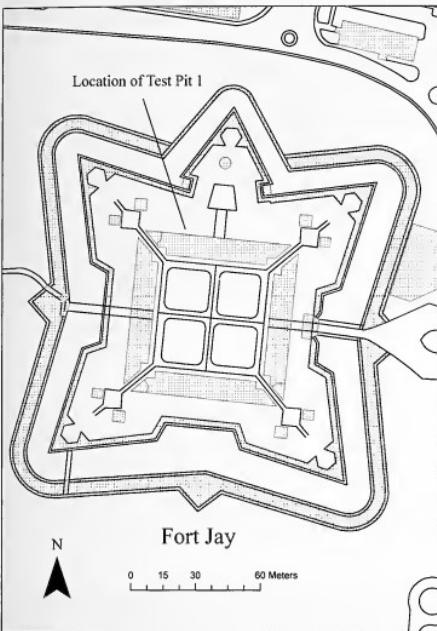
The island was first fortified in 1794 during the First American System of fortification and later rebuilt as "Fort Wood" by Col. Jonathan Williams during the Second American System prior to the War of 1812 (Figure 5.3). In 1877, the island was selected as the site for the erection of Auguste Bartholdi's statue of "Liberty Enlightening the World." The island served a dual purpose of national monument and fort until the 1930s when the popularity of the statue finally eclipsed the military function and the entire island was transferred over to the Department of the Interior (Levine 1952). The 1937 master plan, developed by landscape architect Norman T. Newton, remade the island to complement the popularity of the statue. The island was renamed "Liberty Island" in 1956.

### THE GOVERNORS ISLAND MIDDEN

In November of 2006, Linda Stone, an independent archaeological consultant in New York City, monitored the excavation of two geotechnical test pits for the National Park Service—one below the basement of Building 214 and one in the giant window well behind



**Figure 5.3.** Circa 1812 map of Bedlow's Island. Courtesy of the National Archives and Records Administration.



**Figure 5.4.** Map of Governors Island illustrating the general location of the historical midden. The stippled square inside the fort illustrates the extant buildings. The location of the midden is behind Building 214.

the building (Stone 2006). After cutting through two thick concrete slabs, it appears that a midden deposit of some type was encountered in the exterior geotechnical test pit (Figure 5.4). The midden contained numerous fragments of ceramics, glass, metal, and fauna including abundant shellfish remains, clustering ca. 1760–1770 (Figure 5.5; Table 5.1). While several archaeological excavations have taken place on the island in the last two and a half decades in an attempt to uncover the early history of the island, few colonial remains have



**Figure 5.5.** Photograph of artifacts and fauna uncovered during the monitoring at Governors Island.

Photograph by Linda Stone.

come from the interior of Fort Jay.<sup>2</sup> Current historical research, however, indicates that Fort Jay was built directly over the earlier fortifications.<sup>3</sup>

An analysis of the artifact assemblage is not without problems. First, the exposure of these deposits is relatively small—just about a square meter. Any inferences drawn from such a small exposure are problematic. Second, while the vast majority of the assemblage dates to the mid-eighteenth century (ca. 1760–1770), the deposit is not clean and one piece of whiteware and one fragment of amber glass were observed in Stratum 2 Level 2. While this ceramic fragment and glass appear intrusive, they cannot yet be entirely discounted as purely contamination. Third, the faunal material was selectively sampled.

Several varieties of ceramics were found, including delftware, stonewares, porcelain, slipwares, redwares, scratch blue, and a fragment of creamware. Several 4/64-inch and 5/64-inch bore diameter ceramic pipe stems<sup>4</sup> were also recovered along with numerous glass bottle fragments and unidentified metal fragments. Overall, the midden assemblage seems to represent a fairly high-status British assemblage, with a sizeable variety of ceramics comparable to assemblages found elsewhere on British fortification sites like Fort Edward (Starbuck 1999:81).

**Table 5.1.** Governors Island Artifact Counts. Number represents artifacts retained – total artifacts observed (after Stone 2006).

Context, T.P. Stra. Lev	Bone	Brick	Ceramic	Chert	Glass	Metal	Shell-Clam	Shell-Oyster	Shell-Scallop	Smoking Pipe
1.2.1	2–2	0–2	2–2		1–1	0–1		0–3		
1.2.2	18–49	2–7	34–34		6–20	4–4	2–6	2–42		5–5
1.2.3	12–40	0–2	17–17	1–1	4–7	1–6	3–39	1–1		1–1

**Table 5.2.** Summary of Taxa from Fort Jay, Governors Island.

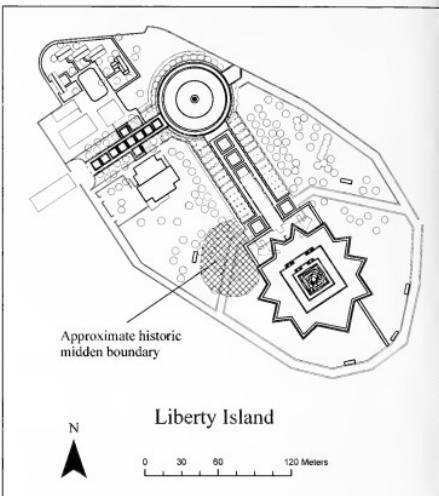
Taxon	NSP	Percentage
<i>Bos</i> (Cattle)	13	39%
<i>Ovis/Capra</i> (Sheep/Goat)	8	24%
Aves (Bird)	3	0.9%
Osteichthyes (Fish)	5	15%
Testudines (Turtle)	1	0.3%
Unidentified Vertebrate	3	0.8%
Mollusca (Shellfish)	8	20%
<b>Total</b>	<b>41</b>	<b>100%</b>

Concerning the fauna, while 185 specimens were originally removed from the unit, only 41 specimens underwent analysis; the vast majority of the fauna not collected were shell. Of the 41 fragments, 33 by count (80 percent) were vertebrates while eight (20 percent) were mollusks. The bone sample includes five taxa, cattle (*Bos* 39 percent), sheep / goat (*Ovis/Capra* 24 percent), bony fishes (Osteichthyes 15 percent), bird (Aves 0.9 percent) and turtle (Testudines 0.3 percent). While high meat-yielding parts of both cattle and sheep/goat were represented, the presence of head and foot refuse of cattle and head bones of sheep/goat suggest that the animals were butchered at Fort Jay, or nearby. The absence of pig bones in this sample is somewhat surprising (Largy 2007).

Other vertebrate taxa identified from Fort Jay include a furcula (wishbone) fragment of a gallinaceous bird (probably chicken), a parapophenoid (head bone) of black sea bass (*Centropristes striata*), and one turtle limb bone fragment (Largy 2007). Oyster and quahog clams are also present in the sample from Fort Jay (Largy 2007). Table 5.2 summarizes the taxa from Fort Jay.

## THE LIBERTY ISLAND MIDDEN

Several seasons of archaeological work were conducted on Liberty Island between 1999 and 2001, including one season on a Woodland Period Shell Midden (Griswold 1998, 2001, 2002). During this work, an historical midden was also discovered on the island (Figure 5.6). Remains associated with the historical midden were collected from 12 strata in nine excavation units to the north and west of the statue (Figure 5.7). Based on the available ceramic evidence, the midden on Liberty Island dates between the end of the American Revolution and beginning of the War of 1812. The *terminus ante quem* for the assemblage is a thick layer of sand believed to have been the result of the ditch excavations surrounding Fort Wood, constructed



**Figure 5.6.** Map of Liberty Island illustrating the location of the historical midden.



**Figure 5.7.** Photograph of an excavation unit on Liberty Island that identified the historical midden.  
Photograph by William Griswold.

in anticipation of the War of 1812. Many of these deposits contained red sandstone fragments like those used to build Castle Williams and Castle Clinton. This type of sandstone seems to have been a favorite material of Col. Jonathan Williams, the architect of the harbor fortification system before the War of 1812.

**Table 5.3.** Liberty Island Ceramics.

Context	Redware	Creamware	Pearlware	Stonewares	Indeterminate	Whiteware	Course Buff Body (Combed Ware)
N178 E147.5 and N178 E148, Stratum 10		1		1			
N190.5 E148.5, Strata 5 and 6	1				1		
N 195 E148.5 and N195 E149, Strata 6, 7, 8, and 9	43	13	1	3			
N200 E153.5 and N200 E154, Stratum 4		16	3				
N200 E148.5 and N200 E149, Strata 4, 5, 6, and 7	17	55	112	4	3	1 <sup>1</sup>	1

<sup>1</sup> Likely intrusive.

The historical midden on Liberty Island appears to contain the remains of the military occupation of the island by the post-Revolutionary War American military. The majority of the ceramic assemblage from the midden is composed of refined earthenwares, i.e., creamwares and pearlwares, with much smaller amounts of stonewares and redwares (Table 5.3).

The Liberty Island faunal sample is larger (N=396) than the analyzed sample from Fort Jay (N=41). The identified fauna are mostly domestic taxa including cattle (48 percent), sheep/goat (24 percent), pig (4 percent), and chicken (7 percent). Fish (11 percent) included striped bass and red drum. Wild taxa included deer (4 percent) and Tundra swan (2 percent) (Largy and Whitcher 2001). Table 5.4 summarizes the identified vertebrate taxa. Shellfish were not included in the analysis, but oyster and quahog remains were numerous throughout the deposits. While pig bones are present in the Liberty Island sample, they constitute a small percentage (4 percent) of the total number of identified specimens (NISP). However, their presence provides evidence that pigs were part of the diet.

## MILITARY SUPPLY NETWORKS

The British military had an extensive supply system prior to and during the American Revolution, and derived their provisions from both local sources and from the British Isles (Curtis 1926:81). Good information is available on the British supply system for the Revolution, and it was likely very similar during the decades immediately preceding it. The majority of foodstuffs throughout the war were supplied by contracts with goods trans-shipped from the British Isles via Cork and other less important food depots (Curtis

**Table 5.4.** Identified Taxa from the Liberty Island Historical Midden, 1999.

	Taxon	Percentage
<b>Domestic Taxa</b>		
<i>Bos</i> (Cattle)	48	
<i>Ovis/Capra</i> (Sheep/Goat)	24	
<i>Sus</i> (Pig)	4	
<i>Gallus domesticus</i> (Chicken)	7	
<b>Wild Taxa</b>		
<i>Odocoileus</i> (Deer)	4	
<i>Cygnus columbianus</i> (Swan)	2	
Pisces (Fish)	11	
<b>Total</b>		100

1926:82–83). These shipments were often supplemented by local purchases in the American continent. New York constituted one food sub-depot along with others in Montréal, Québec, Halifax, Philadelphia, Charlestown, Savannah, and St. Lucia. From these ports, the provisions were distributed by the commissariat to the army (Curtis 1926:82–84). The supplies from Britain, however, were often scarce or they arrived at their destination spoiled or otherwise inedible. General Clinton protested vehemently about the lack of foodstuffs in New York during the Revolution (Curtis 1926:103). Because of this, many supplies had to be procured locally.

One of the most important locally obtained supplies was fresh meat (Curtis 1926:113). Shipment of livestock was expensive and many of the animals died during transport. While historical documents mention shipment of livestock from England, these shipments were considered exceptional, and in general, the army was compelled to find fresh meat locally (Curtis 1926:113). “Thus we find the commissariat at all times zealously

engaged in searching for live stock in the theater of operations" (Curtis 1926:114).

The American military procurement of subsistence items did not change significantly between the Revolution and the War of 1812. Supply was primarily relegated to civilian contractors (Risch 1989:117). Subsistence items had been supplied by contractors since 1781 and continued to be supplied by contractors throughout the War of 1812 (Risch 1989:117, 142). Congress did, however, bring back the Quartermaster General in March 1812, just three months before the war broke out (Risch 1989:136). The position of Quartermaster General had been eliminated and replaced by agents in 1802 (Risch 1989:130). Soldiers and officers supplemented Army rations with commodities from the local sutler (Risch 1989:142–143).

## COMPARISON: NEW YORK CITY

The common thread for both Governors and Liberty Islands is their close connection to New York City. The assemblages found on the islands' sites cannot be properly assessed without understanding the connection to the New York City core, since the trade and commerce necessary to sustain individuals on both islands likely would have come through New York City markets, especially since rations for both the British and Americans were being supplied at least partially by contracts for local provisions.

Markets and commerce in New York City during the eighteenth and early nineteenth century have been examined extensively by Rothschild (1990). In her book, *New York City Neighborhoods, the 18th Century*, she provides an extremely detailed study of the growth of New York City as reflected through historical and archaeological records. Rothschild notes that, during the mid-eighteenth to early-nineteenth centuries, most of the markets were located along the edges of Manhattan to take advantage of the waterborne transportation.

It was clearly most efficient to unload goods at the docks, have trade there, and then have consumers (on their own, or with the help of carters) responsible for the transport of their purchases. Since these markets represented meeting places between farmers bringing their produce to town and consumers needing food, it was probably the farmers' need for easy transportation that was responsible for the waterside location of markets. (Rothschild 1990:57)

Rothschild also did extensive analysis on data obtained from faunal assemblages from three sites in Manhattan: Stadt Huys Block, Hanover Square Block,

and the Telco Block. The data are based on analysis carried out primarily by Balkwill and Cumbaa of the Zooarchaeological Identification Center at the National Museum of Natural Science, Ottawa (Rothschild 1990:xiv). These sites contained different feature types (i.e. privies, sheet refuse, landfill). The faunal assemblages from these sites were divided into four general periods based on the historical and archaeological dating of the sites and the materials: Period I 1624–1700; Period II 1701–1760; Period III 1761–1820; and Period IV 1821–1875. Rothschild noted several general trends in the data that have applicability to the Governors and Liberty Islands data. Ignoring the site of origin and the context of the discoveries, Rothschild noted that mammal bone is the largest component of the total bone assemblage in each period, followed by fish and finally by bird. "However, the amount by which the mammal bone dominates the assemblage drops dramatically, especially between the second and third periods (Table 5.2), with fish bone increasing rapidly" (Rothschild 1990:146).

Rothschild's study led her to conclude that there were markets, but no market system, early on in New York City. These markets were tightly controlled by the government, and free-market capitalism was suppressed. Only later, after economic reorganization and population increase had taken place, did a free-market system based on supply and demand develop toward the end of the eighteenth century (Rothschild 1990:66).

The suppression of a free-market system during the British rule was what Adam Smith referred to as "mercantilism" in *The Wealth of Nations*. This term was used to denote market regulation governing the movement of goods and trade to and from England and her colonies in an attempt to create a single imperial market (Robertson 1985:42). These regulations encouraged the production of some goods while discouraging others. This type of market regulation was intended to benefit only certain people like the merchants and the magistrates (Robertson 1985:42).

The Revolutionary War significantly altered trade and commerce, and these trade patterns were not reestablished until after the conclusion of the war. American merchants were then gradually able to reestablish British contacts and reclaim access to British markets. In addition to Britain, merchants actively cultivated foreign markets in France, Holland, and Spain (Robertson 1985:64–65). While much of America following the Revolution was devoted to creating a new system of government and working out the procedures and protocols for how the new government would operate, commerce—free of the encumbrances established by the British—flourished.

## INTERPRETATION

The discovery of the middens on Governors and Liberty Islands, each the product of a military under a different political system, provides a unique opportunity for comparison. Comparisons can be made between the island assemblages and between the Manhattan assemblages. During the British colonial era, the large profits that were being made in New York City were helping to pay for the large volume of goods being imported from Britain and its colonies (Tiedemann 1997:16). New York ca. 1760–1770 signified a core maritime settlement on a landscape where luxury items of foreign manufacture could be easily obtained. The British Empire was largely centered on trade and commerce, and the people subject to the British system had access to a great variety of trade items.<sup>5</sup>

The Governors Island midden contained an assortment of mid-eighteenth-century imported ceramics that were likely discarded by British officers stationed on the island. Officers often carried trunks filled with personal belongings, while soldiers carried their few possessions on their backs. This dichotomy characterized the enormous economic gulf that existed between officers and soldiers (McConnell 2004:73). While the “consumer revolution” was taking place and soldiers were able to purchase a few consumer goods previously limited to the upper class, most of the wealth and consumer goods were still concentrated in the hands of the officers (McConnell 2004:73–77).

The overall faunal frequencies for the midden on Governors Island are very similar to those found by Rothschild on the sites in New York City for the civilian population, indicating that the food supplies were probably being obtained from similar sources, i.e., markets in New York City. Mammals made up the largest percentage of bone, followed by fish and finally by birds. Fishing was often used to supplement the diet as was evidenced by the large volume of oysters, locally harvested within waters around the island. The fact that foot and head bones of meat-bearing animals were found in the midden implies that stocks of animals existed on the island. Being the largest of the harbor islands, Governors Island was the one most likely to support the pasturage of animals.

Largy notes that the absence of pig bones in the Governors Island faunal assemblage was, however, puzzling (Largy 2007). Pigs have been identified at other contemporary military sites such as Fort Stanwix in upstate New York. Even though no pig bones are present at Fort Jay, it is conceivable that cured meat could have been brought to Governors Island as suggested by Parmalee’s work with a faunal assemblage from mid-nineteenth-century Fort Fillmore, New

Mexico (Parmalee 1967). Parmalee found that the main source of food was beef, with sheep/goat and pig in small numbers. Texts indicate that the occupants of the fort ate bacon, but there was a paucity of pig bones, leading Parmalee to suggest that pork might have been brought in as cured meat. Rothschild’s important study of eighteenth-century faunal assemblages from Lower Manhattan analyzed primarily by Balkwill and Cumbaa (1988) found that domestic taxa predominated, including cattle, sheep, and pig. Pigs were present in large numbers and obviously were an important part of the diet of early residents of Manhattan’s lower wards (Rothschild 1990:147). Therefore, it is probable that the diet of military personnel included pig and the absence of that particular taxa in the Governors Island midden assemblage was the result of sampling error or the use of cured meat. Future excavations on Governors Island should either confirm or contest the absence of pig in the assemblage.

The Governors Island fauna also included fragments of bird (probably chicken), black sea bass, and turtle. These same taxa were “persistent” over time, although in greater numbers, in Periods I through IV (1624–1875) in Lower Manhattan (Balkwill and Cumbaa cited in Rothschild 1990:156). Shellfish, predominantly oysters and quahog clams, are represented in the Lower Manhattan and Governors Island assemblages, which is not surprising considering several nearby islands in New York Harbor were named “Oyster Islands” (Largy 2007).

The midden deposit on Liberty Island, which can be dated to a later period when the island was under American control, also suggests a very similar pattern. Even with the economic hardships involved in establishing and maintaining the fledgling democracy, commerce continued, as evidenced in the ceramic assemblage of the midden. The vast majority of the ceramics found in the midden were British imports, documenting the economic relations that continued even after the Revolution and even amongst members of the military.

It is not as easy to equate the ceramic assemblage from the Liberty Island midden to a particular military group or social class as the one on Governors Island. During the Revolution, rank was strongly correlated with social class (Knouff 2004:xxi–xxii). However, two things began by the time of the War of 1812 that may have influenced this correlation and the composition of the Liberty Island assemblage: first, professionalism within the military ranks slowly began to replace the old system of class appointments as Americans and the military began to look suspiciously at the notion of a “superior” class based on inheritance and social standing (Stewart 2005:388–389); and second, the consumer revolution began making goods, once available to only

the upper social classes, available to a much wider segment of the social fabric. While military rank was likely still correlated with economic standing, the correlation at the time of the deposition of the Liberty Island assemblage may not have been as strong as it was for the Governors Island assemblage. The presence of a large number of refined earthenwares likely indicates that the assemblage was not utilitarian, but it is difficult to assign the assemblage to a particular group.

In terms of the species representation, the taxonomic profile from Liberty Island is somewhat consistent with that of Lower Manhattan for Period III (1761–1820) (Rothschild 1990:156). Mammal bones clearly predominate and the percentage of fish bones recovered from the faunal assemblage just outnumber bird bones in the Liberty Island assemblage. The increasing importance of chicken is also seen in the assemblage as it was seen over time for the Manhattan faunal assemblages (Rothschild 1990:148). The Liberty Island faunal assemblage, however, indicates that the animals being used for food were being butchered elsewhere and brought to the island for consumption. While the supplier is unknown, it is likely that the provisions would have come from one or more of the markets in New York City. The presence of shells (primarily oyster but also quahog) in the vast majority of the Liberty Island historical midden deposits suggests that local shellfish were also being used to supplement the diet much as the British had done on Governors Island. Oysters and quahogs were readily available in the waters surrounding the islands. Again, it can be speculated that the pattern of fauna in the Liberty Island assemblage is likely similar to the Manhattan assemblage because both were derived from the New York City markets.

The presence of a large number of British imports contained in the Liberty Island historical midden assemblage is likely directly related to the growing importance of New York City during this time period. New York, between the end of the Revolutionary War and the start of the War of 1812, witnessed a rise in population and the emergence of free-market capitalism. Anne-Marie Cantwell and Diana diZerega Wall in their book *Unearthing Gotham* comment,

After the Revolutionary War, New York became the premier American city, a position that was based on its new economic role. After their trade ties with the British were broken by the Revolution, the city's merchants created new ones in other parts of the world. Later, as the United States became a major source of the raw materials needed by industrializing Britain and an important market for British goods, much of that trade passed through the port of New York. Trade continued to grow astronomically, especially after the War of 1812 and the opening

of the Erie Canal in 1825, which formed the final link in a water route providing the city's merchants with access to the enormous Midwestern hinterland. (Cantwell and Wall 2001:160–161)

The growing population and expanding importance of New York as a trade port after the Revolution is echoed by others (Meinig 1986:400), and can explain the distribution of imported ceramics in the Liberty Island midden.

## CONCLUSION

Even in times of economic and political uncertainty like the years during and following the Revolutionary War, markets were developing and expanding—at least in New York City. The faunal remains recovered from both Governors Island and Liberty Island middens seem comparable in percentage ranks for mammals, although some of the lower percentage taxa vary. These two island middens also compare favorably with the faunal totals identified in the various Manhattan assemblages. This is true even though one represents the remains of known markets, one represents the remnants of a military and commercial empire, and one represents the remnants of a military in a struggling new democracy. These three assemblages (Manhattan, Governors Island, and Liberty Island) are likely so similar because the New York City markets would have supplied all three groups.

The archaeological remains also indicate that the trade networks, established when the British controlled the country, were not appreciably disrupted following the Revolution. Merchants likely worked quickly to re-establish earlier trade contacts or sought new trading partners after the war. New York City was geographically positioned to take full advantage of the trade with both international and domestic markets. Simply put, New York City was a trade entrepôt and flourished as it transformed toward capitalism. It would be interesting to compare the findings here to other port cities on the East Coast following the Revolution. One could then tell if the New York example is unique or if a similar situation is noted for other port cities.

## ACKNOWLEDGMENTS

We would like to gratefully acknowledge four other people's work, without which this project would have been impossible. We are deeply indebted to these people for allowing us to share this information. Barbara Yocom, Architectural Conservator, Historic Architecture Program, National Park Service, has completed an Historic Structures Report for Fort Jay on Governors

Island. This HSR provides a detailed chronological history of the Island from 1623 when it was initially colonized by the Dutch until 2003 when it officially became a National Monument through Presidential Proclamation. The history retold above is largely taken from Yocum's HSR. Linda Stone, Registered Professional Archaeologist, conducted the monitoring for the geotechnical test pits on Governors Island. This monitoring behind Building 214 on Governors Island recovered the archaeological materials under discussion. Sarah Whitcher, then on staff of the Zooarchaeology Laboratory, Peabody Museum, Harvard University, collaborated with Tonya Largy on the identification and analysis of the faunal remains uncovered from the historical midden on Liberty Island. Peter Burns, a fish specialist at the Zooarchaeology Laboratory, identified the fish from both Fort Jay and Liberty Island. We also thank Dr. Richard H. Meadow, director of the Zooarchaeology Laboratory, for his support of this research. Finally, we thank the reviewers whose comments strengthened our paper.

## ENDNOTES

1. Governors Island has a long and complex history. Interested individuals should refer to the historical summaries for Fort Jay / Castle Williams in Barbara Yocum's recently completed Historic Structures Reports for both Fort Jay and Castle Williams (Yocum 2005a and 2005b); two earlier histories have also been written on the island (Governors Island Club 1937; Smith 1913).
2. In addition to Linda Stone's excavation, several archaeological projects have been conducted on Governors Island (Louis Berger & Associates, Inc. 1986, 1987; and 1995; [PAL] Garman and Herbster 1996; Garman et al. 2000; Herbster et al. 1997). Recent excavations have also been conducted on the covered defile by Stuart Eldridge 2008 [Tetra Tech, Inc.]
3. Larry Lowenthal, retired NPS Historian, while doing research for the Gateway carving at Fort Jay, reported finding several entries in the Proceedings of the Commissioners of Fortifications for the City of New York and its Vicinity:
 

May 12, 1794 Engineer exhibited plan for heating shot: adopted. "The Engineer having submitted to the Board a plan of a Citadel or main work to be erected on Governor's Island to cover the other works..." Approved

May 15, 1794 Engineer produced 3 separate plans of fortifications on Governors Island. "The first marked A and nearly corresponding with the old works in the center of the Island, the second marked B being a regular work in the same spot and covering about one-third more ground, and the last a semicircular Battery marked C and enclosed by a straight line."
4. The dates associated with the bore diameters of the pipe stems (5/64 inch—1720–1750 and 4/64 inch—1750–1800) support the mid-eighteenth-century dates attributed to the assemblage.
5. A huge variety of products was exported, including "pork, beef, bread, butter, peas, rye, cheese, onions, pickled oysters, apples, corn, horses, sheep, boards and staves to the British and foreign West Indies. On their return, ships carried sugar, molasses, hides, lumber, silver, and bills of exchange" (Tiedemann 1997:16).

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## DISTRESSED FOR THE WANT OF PROVISIONS: Supplying the British Soldier on Carleton Island (1778–1784)

Douglas J. Pippin

In the late eighteenth century, the British outpost on Carleton Island was an integral connection between the cities of Montréal and Québec, and frontier garrisons farther to the west. Utilized primarily during the American Revolution, the diverse activity on the island included a fortification—Fort Haldimand—naval base, shipyard, and transport warehouses as well as loyalist and Indian refugee settlements. Acquiring, transporting and distributing provisions were a constant difficulty for the British military and civilian administration throughout the war. Most of the provisions for the soldiers in Canada were obtained in the United Kingdom and shipped across the Atlantic. Despite the great agricultural potential of Canada and the American Colonies, production was simply not at a level that could accommodate the military buildup during the American Revolution. Transport across the Atlantic Ocean and up the St. Lawrence valley led to inevitable delays, and the loss and spoilage of foodstuffs. In addition, Indians and loyalists fleeing the war placed a greater strain on the provisioning system beyond that of the military demand. In order to investigate the efficiency of the provisioning system for the British soldier during the American Revolution, archaeological excavations were conducted at a soldiers' cabin within Fort Haldimand. Not surprisingly, the historical and archaeological data revealed the difficulties in supplying provisions to the Great Lakes in the last quarter of the eighteenth century (Calver 1923, 1925; Calver and Bolton 1950; Gibson 1998, 1999; Pippin 2005). It also reflected the particular ways in which this garrison adapted to the deprivations of life on the frontier during the American Revolution.

Despite their long-standing colonial interests in North America beginning in the seventeenth century, the British had been in control of Canada for only 12 years by the start of the American Revolution. A plan by Governor General Frederick Haldimand to fortify the St. Lawrence valley resulted in a party of soldiers and laborers sent to an island near the head of the St. Lawrence River in the summer of 1778. Three men

instrumental to the establishment of a new fortification and shipyard were Engineer Lieutenant William Twiss, Lieutenant John Schank of the Provincial Marine, and Captain Thomas Aubrey of the 47th Regiment of Foot. Their task at this new post was to serve as a deterrent against an American attack on Montréal and Québec via the Great Lakes and the St. Lawrence (see Figure 6.1). The ability for the army to obtain and deliver supplies to the island was crucial to the post's survival. By the time Fort Haldimand was under construction, however, most hostilities of the war shifted to the southern colonies. The expected second invasion of Canada did not take place, and Carleton Island was never the scene of battle during the war. It was an active transfer point for lake ships and river bateaux, transporting soldiers and goods to and from the upper posts at Niagara, Detroit and Michilimackinac and the cities of Montréal, Trois-Rivières and Québec. Its primary military activity was to be a launching point from which British and Provincial troops made several raids on the Mohawk Valley in New York (Casler 1997; Durham 1889; Gibson 1998: 6–12; Roberts 1980: 210–214; Smith 1997: 13–25).

The island chosen for the new fortification was named Carleton Island in honor of departing Governor General Guy Carleton; the new fortification was named after the recently installed Frederick Haldimand (Haldimand 1758–1785, 21714: 14 Oct 1778). A bluff at the west end of the island overlooks North and South Bays, from which one can see out to Lake Ontario (see Figure 6.2 and Figure 6.3). The road to the fort from South Bay, cut into the limestone by the British, emerges at the top of the cliff just south of the fort. In the eighteenth century, the road made a sharp left turn to enter the fortification over a drawbridge near the intersection of the cliff and the moat. The walls of the fort conform to three sides of an octagon. In the middle of each of the three sides, a bastion projects out from the wall. The purpose for the bastions was to provide placement for the fort's artillery. The three bastions face inland, to defend against an attack from across the island. The moat and several features of the fortification are still visible today.

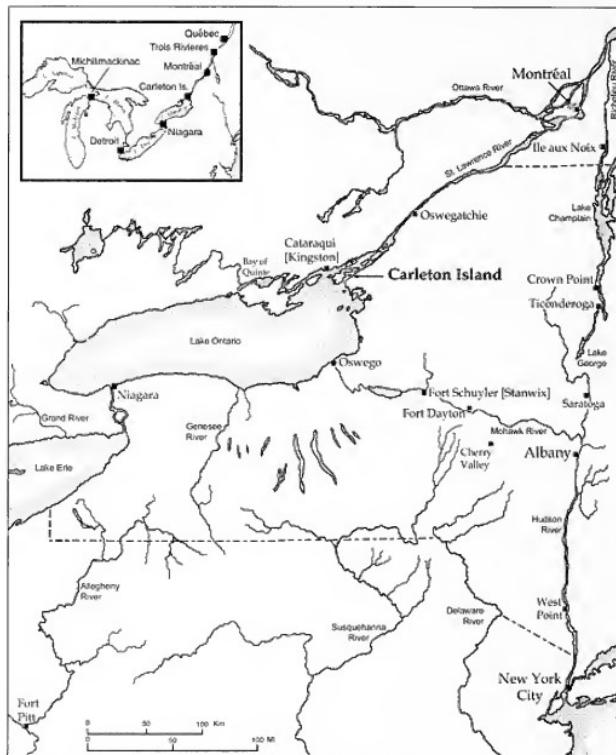


Figure 6.1. New York during the American Revolution (adapted from Trigger 1978:419).

The author's archaeological investigations at Fort Haldimand focused on a structure located near the south cannon bastion. The decision to excavate in this particular area was based on data recovered from the systematic survey and shovel pit testing of the site, which identified surface features and buried archaeological deposits. The discovery of an intact wood floor at the bottom of a shovel-test-pit in 1998 led to the excavation of this structure (designated Locus A). Other architectural elements discovered include cut timbers used for the wall foundations and debris from the collapse of the chimney. A substantial midden associated with the barrack was also discovered on the west and north sides of the structure. The work was conducted on an all-volunteer basis with students from SUNY

Oswego, Syracuse University, and members of the Thousand Islands Land Trust and the Thousand Islands Chapter, New York State Archaeological Association. Twenty-six 1 x 1 meter units were excavated in the vicinity of the structure and midden (see Figure 6.4). The midden deposit has provided thousands of artifacts from the last quarter of the eighteenth century related to the soldiers who were garrisoned at Fort Haldimand.

The excavations revealed a cabin of approximately 4.3 x 6.7 m (14 x 22 ft), with the long wall aligned parallel to the outer wall of the fortification. We do know from the analysis of John Luke's map of Fort Haldimand (see Figure 6.5 and Figure 6.6) and from documentary evidence that the cabin was much smaller than the average structure constructed for soldiers at Fort Haldimand.

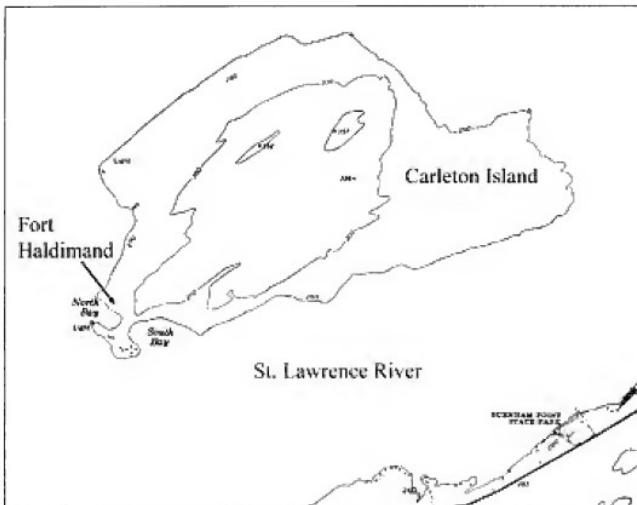


Figure 6.2. Carleton Island, Cape Vincent, N.Y. Detail from USGS Cape Vincent quadrangle.



Figure 6.3. Detail from *Plan of Carleton Island, 1810*, by A. Gray, Assistant Quartermaster General, North America. Library and Archives Canada, Map Collection. Used with permission.

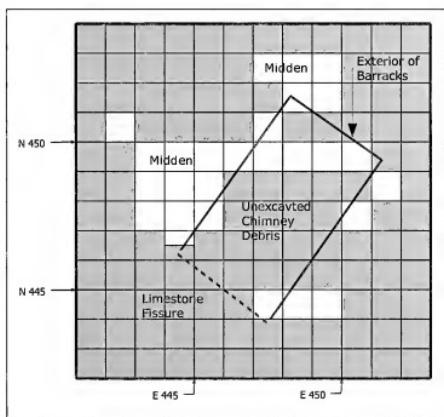
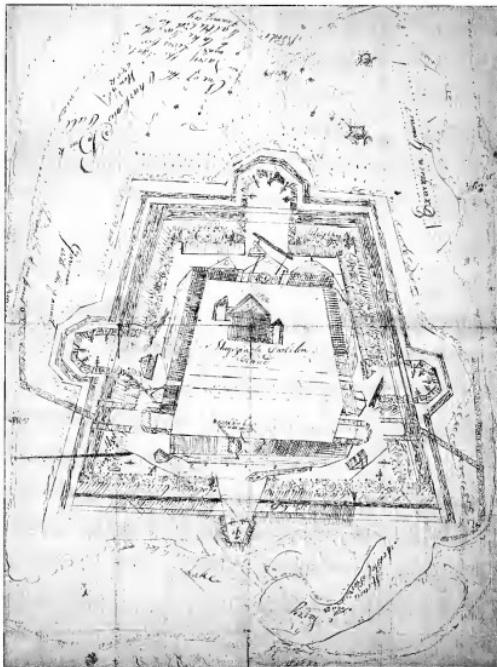


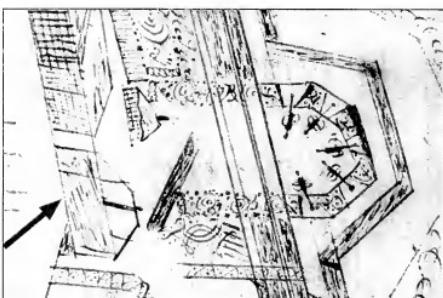
Figure 6.4. Map of Locus A barrack excavations. White area denotes excavated units.

The entrance to the cabin appears to be on the long wall of the cabin, facing the interior of the fort. It was on this side and along the north end of the cabin where the

midden was discovered. Adjacent to the south end of the cabin was a crevice in the limestone that would have prevented any further extension of the structure. It was



**Figure 6.5.** Fort Haldimand as drawn by American prisoner John Luke in 1781.  
New York State Library, Department of Manuscripts and Special Collections. Used with permission.



**Figure 6.6.** Luke's map detail. Arrow indicates structure excavated for this project.  
New York State Library, Department of Manuscripts and Special Collections. Used with permission.

a log cabin laid out directly onto the limestone bedrock; the interior had a wood floor placed over the limestone bedrock, and a large chimney in the center of the structure (see Figure 6.7 and Figure 6.8). Remains of both the timber sills and the floor were discovered intact. The collapse of the chimney was primarily confined to the interior of the cabin structure, although several large cut stones were present on the west side of the cabin. Almost no chimney debris was present to the east of the cabin. This may indicate that the chimney fell in a direction toward the interior of the fort, and while at least parts of the cabin walls were still intact. This may also account for the reason that no timber sill was discovered on the east side, only the remnants of the floor. If the chimney debris fell to the west, the exposed timbers on the east side wall may have been removed for reuse by later occupants of the island.



**Figure 6.7.** Trench initially excavated across the cabin. The interior wall is indicated by the black line. The large cut stones are chimney debris.

The great variety of domestic debris at the structure has led to the conclusion that this cabin was used as a residence, most likely late in the war when the population of soldiers increased dramatically (Haldimand 1758–1785, 21833; Haldimand 1758–1785, 21759; War Office Records, 28/6:149). As the focus of the current inquiry was related to provisions and material culture rather than architectural information, some specific aspects of the cabin are as yet unknown. In September 1782, however, the acting barrack master Alexander Fisher submitted a survey of the barracks at Fort Haldimand (Haldimand 1758–1785, 21759; September 1782), which is transcribed in Table 6.1. This rare document provides details on the number of available rooms per barrack at Fort Haldimand and the total berths and men quartered in each room. As a record of the total possible accommodation within the fort, it shows a capacity of 503 officers and rank and file.

In looking at the results of the archaeological excavations, it is important to consider alternate uses for the



**Figure 6.8.** A 1905 postcard of Fort Haldimand from the author's collection.

cabin excavated. It is possible, for example, that with fluctuations in the island's population, the function of the building changed, and was perhaps used as a storehouse for provisions or materials. Interestingly, Fisher only notes the larger barracks on his survey, without any mention of a smaller cabin such as the one excavated. The reason for this can be attributed to the timing of Fisher's survey. It is likely that the survey of barrack capacity was undertaken in 1782 due to the impending transfer of the 84th Regiment of Foot later that year. According to the garrison returns (Haldimand 1758–1785, 21833; Haldimand 1758–1785, 21759; War Office Records, 1775–1785, 28/6:149) the military population on Carleton Island at the time of Fisher's survey totaled 165 individuals. By November that number increased to 377 (not including the Naval and Engineers departments that were quartered outside the fort). By January 1783 the Fort Haldimand population was up to 602—well past the available accommodations noted by Fisher four months earlier—and putting great stress on

**Table 6.1.** Return of the Barracks in Fort Haldimand on Carleton Island.

	No. of Rooms	No. of Births and Bedsteads for Two Men Each	No. of Men Each Room May Contain	Total Number of Persons
North Quarter Barrack, No. 1 Occupied by Serjts Rank & File	8	96	24	192
East Quarter Barrack, No. 2 Occupied by Serjt <sup>s</sup> Drum <sup>r</sup> s Rank & File	8	96	24	192
South Quarter Barrack, No. 3 Occupied by Serjt <sup>s</sup> Drum <sup>r</sup> s Rank & File	4	48	24	96
<b>Totals</b>	<b>20</b>	<b>240</b>		<b>480</b>

Source: Haldimand 1758–1785, 21759; September 1782.

the ability to provision the garrison. In this context, the small cabin excavated for this project did not show up on the return because it was not in use as a soldiers' residence at that time. It might have stood empty under a reduced garrison, or could have been used for stores and provisions. Regardless, within a few months every available room in the fort was needed for the new arrivals.

In order to assess the efficiency of the British provisioning system during the American Revolution and its impact on the rank-and-file soldier, it was important to recover information related to the daily living conditions of the fort. The variety of foods reflected in the archaeological remains, as well as the activities associated with food storage, preparation and consumption were key to answering these questions and are discussed later in this chapter.

## PROVISIONING THE BRITISH SOLDIER IN CANADA

The British Army during the American Revolution is not an institution that lends itself to an easy or simple description. In reality it was not one institution at all. It functioned, out of necessity, through a combination of multiple branches of government, both civilian and military. The three administrative bodies that held the greatest influence over military operations were the War Office, the Board of Ordnance and the Treasury. The War Office was responsible for military affairs and intelligence, while the Board of Ordnance and its engineers were responsible for the physical structures where the soldiers lived and worked. The Royal Navy was responsible not only for the transport of soldiers, but eventually for the loading and shipping of provisions from Great Britain. Movement of goods on inland waters, however, came under the responsibility of the Treasury and the Provincial Marine (Bowler 1975). The functioning of these bodies was critical to the daily life of the soldier on the frontier, but it was the Treasury that had the greatest influence in provisioning. Its role in the acquisition and distribution of provisions for the British Army in Canada is provided in this section.

The Treasury had a significant role in the functioning of the military and on the daily life of the soldiers in the field. Through the office of the commissary general, the Treasury was responsible for the acquisition and distribution of provisions to the different garrisons (Whitfield 1981:31–32). In addition, the barrack master general's office of the Treasury was responsible for barrack supplies, everything from fireplace tongs to linens (Haldimand 1758–1785, 21833: 30 Sept 1784; War Office Records 1775–1785, 28/5:182). As mentioned previous-

ly, this responsibility did not extend to the barrack structure itself.

The Treasury obtained provision contracts from all over the United Kingdom and assembled the goods for transport at Cork, Ireland (Curtis 1926:83–88). While North America was a territory rich in natural resources, several problems interrupted the military's ability to obtain a regular supply of provisions for the troops. First, the agricultural base in North America was not sufficient to provide the amount of food required. The arrival of the military proved to be a substantial increase in population for some areas. Additionally, as loyalties to the crown varied in the American colonies, there was a risk in depending upon colonial sources. This was a lesser concern in Canada where the British maintained greater control and the French inhabitants showed little enthusiasm for the American cause. Nonetheless, local sources could not be relied upon for regular supplies of provisions.

The person responsible for the Treasury's acquisition and distribution provisions for the army in Canada—for nearly the duration of the war—was Commissary General Nathaniel Day. He was a civilian officer in charge of the commissariat who reported directly to the Treasury, and was beset by the difficulties of his task almost immediately after taking over the office. He declared in 1776 that to provision an army in Canada of 10,000 men, it was necessary to supply provisions for 20,000. The reason for this was not just to guard against loss, theft or damage to provisions, but to provide for the large population for which the army was responsible, as he explained in a letter to the Treasury in October 1776:

... if Britain sends an Army to this Country of ten Thousand men they ought to send provision for twenty Thousand the following being equal to the Army . . . Artificers Labourers Carters Volunteer Canadians Seamen Batteau Men Indians with their wives and children prisoners and Armed Vessels—(Great Britain Treasury Documents 64/102:3)

It is important to note that Day's list of dependants did not mention the wives and children of the soldiers, nor the loyalist refugees who would grow in number throughout the war and look to the military for relief. It was Governor General Frederick Haldimand who made the decision to provision the loyalists that were streaming into Canada during the war, many of them displaced New Yorkers. He explained in a letter to Lord George Germain on October 14, 1778, that their distress was so great that he took for granted the necessity of incurring the extra expense (Haldimand 1758–1785, 21714). Unfortunately Haldimand's allowance was not extended to the wives and children that accompanied the soldiers, placing a greater

burden on those with families. Only a very small number of women were able to draw provisions, usually in exchange for providing domestic chores.

Day complained that his staff was remiss in keeping accounts and in making regular reports on provision stores. He had a staff of at least 90 working for his office in Canada and the upper posts according to a return dated December 25, 1782 (Haldimand 1758–1785, 21854). This included everyone from the deputy commissary general to the various coopers, conductors and laborers in the department's employ. Several members of the commissariat resided at Carleton Island, each with a specific responsibility. Because of its importance as a shipping hub, the assistant commissary general, Neil McLean, lived on Carleton Island to oversee the great number of provisions and materials that made their way through the post. Working under him as assistant commissary for transport goods at Carleton Island was Alexander Fisher—who also served as the Treasury's barrack master; John McNab served as the assistant commissary for the soldiers of the garrison. They were assisted by one cooper and one laborer (Haldimand 1758–1785, 21854:25 December 1782). Despite whatever difficulties or hardships arose while serving the commissariat, it was a lucrative service. The participants involved were able to capitalize on their contacts and knowledge of trade in the growing settlements of Upper Canada following the war.

Certainly one of the greatest problems with provisioning the army in Canada was the physical distribution and transport of the goods. The Treasury played an important role beyond just the acquisition of provisions: at the start of the war it was responsible for transporting goods to Canada, and on to the various posts. For materials going to and from Carleton Island and the cities along the St. Lawrence River, the Treasury was primarily responsible. It was the Provincial Marine, however, that operated the port and shipyard at Carleton Island and made the transport across the Great Lakes. This branch of the service functioned as the British freshwater navy in North America, but it operated under the direct authority of the governor general rather than the Admiralty. Nathaniel Day himself best sums up the difficulties in the transport of goods in Canada:

The daily fluctuations of Issues in this Province in time of War is beyond all conception, owing in part to the great extension having troops stationed . . . upwards of 1,200 Miles . . . please add to this extension the difficulty of transporting provisions from Quebec to supply these posts, The Vessels deliver their Cargoes at Sorel and Montreal which is easily performed, tho in summer very tedious, the difficulties commence from these two Posts, as the Transport must be made from thence by Batteaus

and land Carriage, executed by Canadians, whose propensity for pilfering is such, that Obliges me to send conductors to protect the provisions from the theft . . . (Treasury Documents 1547–1930, 64/102: 23)

This dispersal of regiments and companies throughout Canada is borne out by the monthly strength returns compiled for soldiers at Carleton Island and the upper posts in the Great Lakes (Haldimand 1758–1785, 21833; Haldimand 1758–1785, 21759; War Office 1775–1785 28/6:149), found in the Frederick Haldimand Papers of the British Library; many specific to the 84th regiment at Carleton Island can be found in the Malcolm Fraser Fonds 1755–1815 at Library and Archives Canada [LAC] (LAC Fraser 17–19, 35).

As Carleton Island was a transfer point for materials moving into the frontier, the passage across Lake Ontario was naturally much different. A variety of ships came out of the yards at Carleton Island, Oswegatchie, and Oswego in the second half of the eighteenth century. The majority of those built at Oswego were constructed during the French and Indian War, and those that were left were considered well past their prime by the start of the American Revolution (Macpherson 1963:173–179). The primary vessel for the transport of provisions and troops to and from Carleton Island and the cities down river was the batteau. This flat-bottomed boat, tapered at each end, was often between 30–40 feet in length and able to transport four to five tons of cargo (Smith 1997:17). Batteaux were well suited to the bulk transport of men and materials on the St. Lawrence. They were not complicated vessels and could be constructed in four or five days. Batteaux could be portaged around rapids, poled in shallow waters, used with oars and rigged with a small sail if the wind was favorable. A quartermaster's return filed in October 1779 indicates that 194 batteaux were employed in the transport from Lachine, near Montréal, to Carleton Island (Haldimand 1758–1785, 21849: 1 Oct 1779; Haldimand 1758–1785, 21849: ND). This represents more than a third of all the batteaux available in Canada at the time, including those on the Richelieu River and the lower St. Lawrence River between Montréal and Québec.

The amount of men and material that could be carried in one batteau and the total number that were recorded on the St. Lawrence River in any one season were remarkable in light of the constant shortages of materials that were reported. In a report for General Haldimand on the logistics of transport, it was noted that a single batteau could accommodate at least 24 barrels as cargo with a crew of three, or up to 18 soldiers and crew with enough provisions for the journey. The trip upriver from Montréal to Carleton Island took two

weeks or more, depending on the season (Haldimand 1758–1785, 21849: ND). These boats were kept in constant service when the river was free of ice. From April–October 1780, an average of 134 boats per month, loaded with troops, stores and provisions, were sent from Lachine to Carleton Island (Haldimand 1758–1785, 21849: 20 Nov 1780). Two years later, Treasury returns from May–October 1782 show the number of monthly trips ranging from a low of 216 to a high of 301 (Haldimand 1758–1785, 21849:30 June 1782, 30 Sept 1782, 31 Oct 1782).

Civilian merchants were present on Carleton Island, often as Treasury contractors, but were beset by shortages. Similar conditions were described by Francis Goring in a letter from Niagara to Samuel Street in Montréal dated March 15, 1780, now held at Library and Archives Canada (LAC). In it he described the longest and coldest winter ever known in Canada. Liquor and provisions, especially flour, were in short supply. Goring cautioned Street to bring his own food if he traveled upriver that year. Blankets were in very short supply and he advised Street that one of their agents was ordered to "buy up all the blankets in Canada" (Goring 1776–1833: 92–93). Goring described that all of the progress on putting up a new building at Niagara was halted, even with the timber cut and ready, as the commandant, Colonel Bolton, had not yet approved a site for the new structure. Goring complained that Bolton had not yet "dared to show his nose out this winter" (Goring 1776–1833: 93). Despite their connections and active trading, the civilian merchants were not a significant source of supply for soldiers.

## THE 84TH REGIMENT OF FOOT AT CARLETON ISLAND

One of the primary regiments to occupy Fort Haldimand late in the war was the 84th Regiment of Foot, or Royal Highland Emigrants. The activities of this regiment on Carleton Island can be gathered not only from historical documents; the archaeological analysis has shown that soldiers of the First Battalion, 84th Regiment of Foot were the principal inhabitants of the excavated cabin at Fort Haldimand. This section will provide a brief overview of this regiment whose soldiers made up part of the garrison on Carleton Island.

The Royal Highland Emigrants began as a provincial regiment in 1775, among the many that were formed in North America at the outbreak of the American Revolution. It would later have the unique status of being one of the only provincial regiments that would be promoted to a numbered regiment of the British line: the 84th. General Thomas Gage signed the muster

papers for the regiment in New York City in 1775 (War Office 1775–1785, 28/4:211). His goal was to recruit many of the Scots émigrés in North America, especially those who served the crown in the French and Indian War. In actuality, only about a quarter of the troops that served in this regiment were Scotsmen (War Office 1775–1785, 28/10:132–207). It was the officers of the Royal Highland Emigrants who brought to their new regiment much of the symbolism, ceremony and traditions that had been established among Highland regiments formed decades earlier.

From the beginning, the regiment was organized into two battalions of ten companies each. This was unusual for regiments of that time, where one battalion of ten companies often constituted an entire regiment. While the two battalions shared common traits, customs and practices, their military operations generally remained separate. Throughout the length of the war, in fact, the two battalions did not operate together as a single unit. The 1/84th served predominantly in the St. Lawrence valley, Great Lakes, and the Richelieu/Champlain corridor. The 2/84th fought in southern engagements early in the war, with many soldiers and officers taken prisoner; they also formed garrisons in New York and Nova Scotia.

Some demographic information about the soldiers of the 84th Regiment has been retained in the form of recruitment muster rolls. The information they contain often includes the soldier's name, age, size, former occupation, place of birth, complexion and previous military service. These documents are rare, but four remain for the 84th regiment, and were compiled from December 1778 to April 1780 by two officers, Alexander Fraser and Donald McKinnon (War Office 1775–1785, 28/4:233, 237–238, 242). Although representing a small sample of the regiment, these documents provide rare information for 36 newly enlisted men of the first battalion. The data collected on all four returns is not identical; only for a few recruits do we see information collected on previous military service and the amount of bounty paid for their enlistment.

The average age of these recruits was just under 26 years old and all but two were under 6 feet in height. The muster returns show a great diversity in the origins of the enlisted men. Only five of the recruits were Scots, nine stated that they were from Québec or Canada, one was French, another nine were English. The largest single group, however, were Irish, with eleven total recruits in the group. No fewer than 14 different occupations are represented among the recruits. These include carpenter, clerk, clothier, cooper, cordwainer, hair dresser, hatter, husbandman, iron founder, laborer, stonecutter, taylor, turner, and weaver (War Office 1775–1785, 28/4:233, 237–238, 242).

This information on occupations supports the statements by some scholars (Frey 1981:5–6; Conway 1990), who have countered the notion that British soldiers during the revolution were from the lowest class, and often criminals or without a trade. Surely many soldiers were without education or trade, and some were forced into military service as an alternative to jail, but the vast majority had an occupation and likely turned to army service due to economic pressures in Great Britain. Many of the regiments that were augmented with convicts from the jails were actually sent to the West Indies. A posting to the Caribbean was considered a great risk due to the high mortality from tropical diseases. The army administration would not want to expose their best troops to such a possibility, and so the regiments that served in Canada and the colonies were essentially made up of few criminals. An additional incentive for the recruitment of unemployed but otherwise skilled laborers was the shortening of length of military service from an indefinite period of time—often a lifetime enlistment—to a period of three years, or for the length of the war (Conway 1990:374–375).

Captain Malcolm Fraser's company of the 84th Regiment of Foot (Desloges 2000) was transferred to Carleton Island from the garrison at Sorel in the fall of 1782. They were not the first company of the 84th to be garrisoned at Fort Haldimand, but they would be among the last; their stay lasted until the regiment was disbanded in 1784. On the way to the post, a regimental order taken down in Fraser's book outside Montréal provides a warning to the men of his company as they move to a new post, "Any man who behaves in the unsoldier like manner they did at Sorel, by damaging and dirtying the barracks will be made sever examples of" (Fraser 1733–1815, 29:27 Oct 1782).

A company return in Fraser's orderly book for 1776 indicates a much higher number of women and children with his company than indicated late in the war on Carleton Island. From January to June 1776, a combined total of women and children with the company went from a peak of 21 during the winter and to zero by early summer. Late in June 1776, and lasting until September, two women are listed as attached to the company. One additional woman joined the company for most of 1777. Unfortunately the totals for women and for children are not given separately, so we cannot see the difference in their numbers; no explanation is given for the reduced number. The returns for Fraser's company on Carleton Island do not show more than two women with the company at any time (Fraser 1733–1815, 15 and 19).

The reason for the decrease in women and children accompanying the regiment may be found in correspondence from early 1780 between the Commissary

General Nathaniel Day and Frederick Haldimand's secretary, Captain Robert Mathews. In a letter dated March 6, Day indicated that the quartermaster of the 84th regiment has "made a demand of rations of provision for 23 women of the regiment, whom I understand have been included in their strength & constantly drawn from the magazine. At this time of scarcity I cannot comply with their demand, nor issue provisions to women . . ." (Haldimand 1758–1785, 21851). The subsequent reply from Mathews expressed the general's full support and surprise at the request (Haldimand 1758–1785, 21851: 9 March 1780). Regardless, women continue to appear on the company's strength return all the way until 1784, but not at all near the numbers recorded early in the war. It is not known from exactly which post(s) the 84th made the request for "women of the regiment," nor if, in fact, the women involved were actually soldiers' wives.

## A SOLDIER'S DIET

A garrison order from Trois-Rivières in 1776 illustrates what may be considered a typical British ration during the American Revolution. The content of the soldiers' diet was supposed to consist of the items quoted in Table 6.2. The provision returns from Carleton Island include the core of the standard ration described from Trois-Rivières with one exception. There is no salt beef listed in either the storage or transport returns from Carleton Island for the years 1782–1784 (21759; Haldimand 1758–1785, 21855). The reason for this may lie within the prescribed ration itself. Salt beef was to be delivered at one pound per soldier, per day, while pork, the alternative, was distributed at half that amount. The difficulties of long distance transport functioned as a determinant in the soldiers' diet, as twice the weight was needed to provide beef for the same number of soldiers.

The records left behind by the Treasury illustrate the amount of provisions needed to feed the British Army in Canada for a six-month period, from May 25 to December 24, 1776. Table 6.3 shows the total amount brought in from Great Britain combined with the amount bought from the inhabitants in Canada. This particular return also provides the total amounts lost or destroyed. Theft was common in the loss of provisions and often took place when they were most vulnerable: during transport. Commissary General Day described his mortification upon seeing a cask from which the butter had been removed and stones replaced in order to maintain the weight (Treasury Documents 1547–1930, 64/102:22–24). In addition to theft, spoilage was common due to poor packing, the constant expo-

**Table 6.2.** Daily Provisions for the Army in Canada, from Garrison Orders at Trois-Rivières.

The provisions for the army are to be delivered as follows. A compleat ration for one man for one day in every species ...	
Flour or Bread	1½ Pounds
Beef	1 Pound
or Pork	½ Pound
Pease	¼ Pint
Butter	1 Ounce
Rice	1 Ounce
Whenever the situation of the army prevents this distribution of provisions it will then be delivered in the following manner, which is to be the compleat ration	
Flour or Bread	1½ Pounds
Beef	1½ Pounds
or Pork	10 Ounces
Should it happen that no provisions except flour or bread or rice can be issued, a compleat ration is	
Flour or Bread	8 Pounds
or Rice	1½ Pounds
Whenever fresh provisions can be procured for the army the rations to be the same allowance	
Provisions will be delivered to the army by Commissary Genl Mr Day or his deputies & receipts according to forms which the commissary general will settle to be given on the delivery. Garrison Orders, Three Rivers, 11th June 1776.	

Source: Treasury Documents 1547–1930, 64/102:6.

sure to the elements and the difficulties in long transport. Day indicated that peas and oatmeal were particularly vulnerable to vermin (Treasury Documents 1547–1930, 64/103:49). Despite the difficulties, however, the overall percentage of provisions lost, destroyed or stolen was relatively low, at least as it was reported officially. The item suffering the greatest loss, not surprisingly, was the supply of brandy. Approximately 28 percent of the supply was lost, stolen or destroyed, the greatest proportional loss of all the provisions reported in this return.

Some food items outside the standard ration are found in the provision records for Canada during the American Revolution. The return for all provisions received and purchased in Canada for the second half of 1776 shows numerous items that did not appear on the Carleton Island provision returns later in the war (see Table 6.4 and Table 6.5). These items include: fresh beef, fresh bread, raisins, barley, cheese, sugar, brandy, oil, beer, arrack and sauerkraut. Acquisition of these supplemental provisions was more likely in urban garrisons and likely based on an individual's greater

socio-economic status. They were generally out of the scope of possibility for rank-and-file soldiers. The physical bulk of the soldiers' diet was made up of the bread or biscuit and the salted meat. Fish had the one of the highest rates of loss in 1776. We do know from archaeological evidence that soldiers on Carleton Island were taking fish from the St. Lawrence River—in great variety—to augment their provisions (Pipes 2007).

Agriculture was encouraged at all of the frontier garrisons. On Carleton Island, farming was encouraged and yearly attempts were made to try and supplement provisions with vegetables from the King's Garden, with varying degrees of success. Without a civilian community from which to purchase or trade for provisions, their remote location left soldiers more dependant on the army system of distribution than most of the troops in North America. Captain Thomas Aubrey noted in November of 1778 that he received and planted 20 apple trees on the island, but that it was already too late in the season for the sowing of winter wheat. His plans included clearing ground for Indian corn and potatoes, some of which was still being cultivated four years later, as noted in the return transcribed in Table 6.6.

Flour was one of those provision staples in which there was a great range in quality, shipment and storage. A great proportion of the flour sent on HMS *Buckingham* in 1776 was lost on board due to the poor casks in which it was stored. The ship's sailing master informed Commissary General Day that he reported the casks insufficient, even as they were being loaded in Cork. Day reported to the Treasury in 1776 about the diligent work of his cooperers in trying to fix the situation. The poor state of the flour casks paled in comparison to that of the dried pease (peas), however. They were stored in sacks and not in wooden containers at all, leaving them more susceptible to rodents (Treasury Documents 1547–1930, 64/102: 2). In the same letter, however, Day reports optimistically that he was able to obtain sufficient quantities of local wheat from Canada.

One difficulty that stood between Day and his wish to supply the troops with local flour, however, was the lack of grist mills. The Canadian economy was not large enough at that time to meet the production demands necessitated by the arrival of thousands of troops. The local inhabitants usually ground only enough grain for their personal use and sale in local markets. They sold the rest of their crop usually as whole grain for export. To make matters worse, the winter of 1776–1777 was very mild. The reduced snowpack meant that water levels were often insufficient to power those mills in operation, creating a further shortage. Day's plan was to build a grist mill, capable of grinding year round, upon the rapids at Chambly. He hoped for the approval to build it at government expense for the good of the

**Table 6.3.** Provisions Received and Purchased in Canada from May 25, 1776, to December 24, 1776.

	Total Received and Purchased	Measure	Total Lost, Stolen or Destroyed	% Lost
Flour (local)	3,686,551	Pounds	201,750	5
Beef, fresh (local)	2,843,174		18,000	<1
Flour (British)	2,071,098		15,424	<1
Biscuit	2,069,100 ½		376,547	18
Pork, salt	1,789,796		5170	<1
Beef, salt	980,400 ½		3,648	<1
Baked Bread (local)	522,842		6,000	1
Oatmeal	348,724		[illegible c. 5,000]	1
Butter	175,552		5416	3
Rice	101,987		8898	9
Raisins	18,566		970	5
Barley	13,324		790	6
Cheese	7,149 ¾		1787	25
Sugar	5,981		194	3
Suet	2,043		110	5
Fish	854		196	23
Rum	126,139	Gallons	4245	3
Vinegar	6,643		535	8
Brandy	6,654		1836	28
Oil	6,208		226	4
Wine	1,094		—	—
Beer	480		52	11
Arrack	126		—	—
Pease	28,836	Bushels	124	<1
Sourcruit	60	Puncheons	—	—

Source: Treasury Documents 1547–1930, 64/102: 29.

service, but would be willing to undertake it as a private endeavor should they disapprove. His offer to personally finance the mill was more than a patriotic gesture, as he undoubtedly would have made a great deal of money as a contractor selling flour to the army.

The quantity of available flour was one problem that occupied the commissary general, its quality was another. In Nova Scotia, Captain Alexander McDonald reported the state of his company's flour ration to Colonel Allan McLean in December 1776. He stated that the flour ration was, "rank poison . . . exactly like Chalk & as Sower as Vinegar." The regimental doctor's opinion was that eating bread made from that flour was enough to destroy the entire regiment. McDonald's wrath was such that he hoped that the contractors responsible "should be made to suffer." He blamed them for shipping provisions that had already been formally condemned (McDonald 1883:303–304).

Commissary General Day—having been reminded by the lieutenant governor that he was to obtain best quality flour for the army in Canada—reported that

**Table 6.4.** Provisions in Store at Fort Haldimand, September 10, 1782.

Provision	Weight / Volume
Flour	46,821 lbs
Pork	91,566 lbs
Pease	10,012 gal
Butter	1,906 ½ lbs
Oatmeal	6,241 lbs
Salt	50 lbs
Vinegar	83 gal
Rum	16 gal

Source: Haldimand 1758–1785, 21759.

there was an insufficient quantity available. To supply the army with first quality flour, which meant flour from Great Britain, would take more than could be found in store throughout Canada (Treasury Documents 1547–1930, 64/102:26). The soldiers' dislike

**Table 6.5.** Provisions Ready for Transport at Carleton Island, September 19, 1782.

	Tierces	Barrels	½ Barrel	Bushels	Firkins	Pounds	Gallons
Flour	146	—	—	—	—	48,608	—
Pork	—	1,328	2	—	—	276,432	—
Butter	—	—	—	—	25	1,663	—
Pease	—	678	—	3,390	—	—	—
Meal	—	—	—	—	—	—	—
Rice	—	—	—	—	—	—	—
Rum	18	—	—	—	—	—	1,993
Vinegar	—	—	—	—	—	—	—

Source: Haldimand 1758–1785, 21759.

**Table 6.6.** Survey of the Government's Farm at Carleton Island, September 10, 1782.

	Number of Acres	Bushels of Wheat	Bushels of Potatoes
In cultivation this year	90	400	1,000
Land with the trees cut down but not cultivated	60	—	—

NB: *The potatoes belong to the garrison, the wheat is not threshed but is supposed to give the above mentioned number of bushels. The spring wheat and oats being destroyed by the grasshoppers. F. Dambourges, Asst Eng*

Source: Haldimand 1758–1785, 21759.

of this flour might have been the reason that it was listed as lost, stolen or destroyed at five times the rate of Great Britain flour (as previously noted in Table 6.3). What this dispute boiled down to was the amount of refinement in the flour itself. The local Canadians produced a flour that Day called “farine entière,” essentially a whole wheat flour, which made a bread that was more coarse than that to which the soldiers were accustomed. Preferences for certain types of specie did not end with the flour. In one recorded example, it was the presence of oatmeal included in the ration. In a letter to Commissary General Day from the Treasury Board Secretary John Robinson in 1779, Day was informed that oatmeal was not being sent out with the provision stores, as they received word that the men did not like it (Treasury Documents 1547–1930, 64/104:22).

The most common form of meat in a soldier’s diet was salt beef and salt pork, as fresh meat was generally unavailable for the rank and file except in special circumstances. Nathaniel Day had doubts as to how many he could feed with fresh provisions (Treasury Documents 1547–1930, 64/102:3). One exception was the order given by General William Phillips—the garrison commander at St. John—that required Day to supply the hospitals at Isle aux Noix and St. John with fresh meat, whatever the cost (Treasury Documents 1547–1930, 64/102:17). Day complied, if only at the above-stated hospitals; nearly all of the other troops were on salt provisions by that time (Treasury

Documents 1547–1930, 64/102:5).

At Carleton Island, the provision returns for the garrison overwhelmingly indicate that pork was the preferred meat for the standard ration (Haldimand 1758–1785, 21759). This was likely due to greater availability, but transport may have also been a factor. Because salt pork was issued at one half the rate as salt beef in the standard ration (Treasury Documents 1547–1930 64/102: 6), it therefore required twice as much effort to transport the salt beef as opposed to salt pork. Beef was occasionally a part of the soldiers’ diet at Carleton Island, however, as the remains of cattle have been recovered archaeologically (Pipes 2007).

A wide variety of zoological remains are found in the Fort Haldimand collection from the barracks excavation (Pipes 2007; Pippin and Pipes 2008), but the analysis was hampered by the nature of the context. The midden was situated adjacent to the fort’s entrance where high traffic and shallow depth to bedrock resulted in greater crushing of the materials. Despite that, several important trends can be noted from the analysis. The faunal analysis was conducted by zooarchaeological consultant Marie-Lorraine Pipes (2007). A large number of fish, bird and mammal species were identified and several interesting results were uncovered in the analysis. More than 6,300 faunal fragments were recovered. Approximately 1,000 fragments of bone were burned. Specimens were analyzed for class and species type, size range, minimum number of bone units, and also

**Table 6.7.** Mammal Remains from Locus A, Fort Haldimand.

	Total Number of Fragments (TNF)	Minimum Number of Bone Units (MNU)
<b>Domesticated Mammal:</b>		
Cat	10	2
Cattle	94	80
Canid	1	1
Goat	2	1
Pig	200	166
Sheep	76	63
Sheep/Goat	2	2
<b>Wild Mammal:</b>		
Chipmunk	4	4
Deer	29	28
Mouse	4	4
Muskrat	1	1
Rabbit	13	1
Raccoon	8	5
Rat	7	6
Rodent, medium	3	2
Rodent, small	12	7
Rodent, unidentified	7	5
Woodchuck	2	2
<b>Unidentified Mammal:</b>		
Small Mammal	20	18
Large Mammal	26	11
Medium Mammal	2500	223
Unidentified Mammal	282	8
<b>Total</b>	<b>3,305</b>	<b>642</b>

Source: Pipes 2007.

aging where possible. The data in Table 6.7 and Table 6.8 are provided in both minimum number of bone units (MNU) and total number of fragments (TNF). The number of minimum bone units is utilized rather than a minimum individual count to more accurately represent the number of butcher cuts or specific body parts of the animal.

Some evidence illustrates the soldiers' attempts to hunt, fish and grow their own food on the island to augment their provisions. These efforts, however, met with varying degrees of success—as illustrated in 1782 survey of the government farm on Carleton Island and noted previously in Table 6.6. As for hunting, the soldiers' movements were under strict control on the island, and parties were rarely allowed to hunt on the mainland. The commanding officers' concerns were that the soldiers would be captured or, more likely,

**Table 6.8.** Fish Remains from Locus A, Fort Haldimand.

	Total Number of Fragments (TNF)	Minimum Number of Bone Units (MNU)
<b>Freshwater Species:</b>		
Bass species	3	3
Catfish	194	182
Drum species	5	5
Longnose Gar	1	1
Northern Pike	10	10
Perch species	6	6
Pike species	18	16
Rock Bass	31	31
Smallmouth Bass	9	9
Striped Bass	7	7
Sturgeon	6	6
Walleye Pike	10	10
Yellow Perch	2	2
<b>Saltwater Species:</b>		
Cod	3	
<b>Unidentified Fish:</b>		
Unidentified Fish Species	2,467	1,452
<b>Total</b>	<b>2,772</b>	<b>1,743</b>

Source: Pipes 2007.

desert the service. If wild game were obtained, especially deer, it was more likely through trade with the Mississauga or Mohawk natives. Regardless, the zooarchaeological analysis shows a relatively low proportion of venison in the assemblage. Of that, mostly haunches are represented—without the other elements expected in localized butchery—indicating that the meat was brought from some distance to the island. The overall results of mammals in the Fort Haldimand assemblage are presented in Table 6.7.

Pig remains consisted of a full range of body parts. Meat cuts were difficult to assess, but it seems that hams from the forelimb and hindlimb were indicated. The neck, thorax, loin, shoulder, hock, foot and butt were also present. Meat cuts consisted mainly of stews and hams, though chops were also indicated. The data suggests that live pigs may have been present at the site. The high count of hams, however, suggests that preserved meat was also brought in, consistent with the historical documentation. Cattle remains were not as comprehensive as pig remains. Overall, age was determined for very few cattle elements. Body parts included head and foot, loin, thorax, shoulder, forelimb, loin, rump, and hindlimb. The frequencies of skeletal elements varied considerably. Thorax elements, thoracic vertebrae and ribs were well represented, accounting for approxi-

mately one-third of cattle remains. The presence of several tibias and distal femurs indicates a high frequency of stew meats. It appears that stew meats were more common than steaks or roasts. The cattle remains appear to represent barrel beef as opposed to live animals brought into the site and later slaughtered.

Sheep remains were almost as common as cattle, although little or no mention of sheep is made in historical documents in reference to the standard army provision. Though most of the skeletal elements for which age was determined came from mature individuals, one foot bone came from a juvenile. There was a wide range of body parts. The preponderance of certain cuts, especially the shanks, suggest that this meat was brought to Carleton Island preserved (Pippin 2007; Pippin and Pipes 2008).

One factor that could illustrate the soldiers' reliance, or lack thereof, on standard military provisions, would be the amount of data showing localized acquisition of food and provision. At Fort Haldimand this is reflected especially in the diversity of local fish that were taken from the St. Lawrence River. A large quantity of fish remains were recovered archaeologically; that data is presented below. Additionally, the discovery of fish hooks and a harpoon tip in the midden area of the soldiers' cabin indicate that they were not simply trading for fish. They were directly involved in augmenting their rations with fish from the St. Lawrence.

Of the fish remains in the archaeological assemblage, there is a clear indication of utilizing local fish as a food source (Pippin and Pipes 2008). The amount of fish remains in the collection represents approximately 50 percent of the faunal volume, a very high percentage for an eighteenth-century military site. The results from the analysis of the fish remains are presented in Table 6.8. Catfish was the most abundant species represented, followed by several species of bass and pike. Perches, gar, drum and sturgeon were less common in the assemblage. The low proportion of saltwater fish corresponds with the historical record (Haldimand 1758–1785,

21759: 10, 19 September 1782; Haldimand 1758–1785, 21855: 24 June 1783 and 24 June 1784) that shows little or no salt fish being transported up the St. Lawrence. The distribution of freshwater fish bone units suggests that the fish were cleaned and filleted before cooking and that this bone represents processing waste. A large number of fish bone remains unidentified, but it still represents a significant resource utilized by the soldiers beyond the standard ration.

Overall, birds do not appear to represent a significant percentage of the food remains. For each species, body part distributions were generally composed of edible meat bearing elements. There were a few exceptions. For instance the *Gallus* elements—the genus that includes pheasants and domesticated chicken—were represented by a shoulder blade and a partial skull. There was another unidentified bird mandible, and a small number of phalanges, and a foot bone. This type of refuse from the assemblage is generally associated with table refuse.

Consumption of beverages by soldiers at Fort Haldimand was most likely in the form of spruce beer, but rum, wine and gin were available in limited quantities. There is some variation in the historical record as to whether or not spirits were issued as part of the standard ration to soldiers of the British Army during the American Revolution. The conventional wisdom, according to Westbrook (1997:509), was that a soldier "enlisted for drink" and that the British Army issued a daily ration of rum to its troops. Several scholars, in fact, indicate that there was a daily ration of rum for the British army in North America in the eighteenth century (Curtis 1926: 91–92; Frey 1981:63–65; Kopperman 1996:445–447; Whitfield 1981:43–44). While rum was transported in great quantities up the St. Lawrence River and Great Lakes, it was not a regular daily issue to the soldier of the British Army in Canada at this time. Its only distribution to the common soldier was as a reward for their participation in the fatigue labor at the various garrisons. The distribution for fatigue labor was

**Table 6.9.** State and Annual Consumption of Rum at the Upper Posts.

	June to December 1780	December 1780 to June 1781
Oswegatchie	167	187
Carleton Island	3383	4496
Niagara	3948	3325
Detroit	5844	4410
Michilimackinac	759	1050
<b>Total</b>	<b>14101</b>	<b>13468</b>
Annual Issue (Losses Included):	27,569 Gallons	

Source: Haldimand 1758–1785, 21854: 24 June 1781.

at a rate of half a pint of rum per day, per man. While a great deal of rum was issued to the troops for their labor, on any given day at Carleton Island there was no standard rum ration for the soldiers of the garrison. Brian Dunnigan (1999:19) makes the same assertion with regard to his work at Michilimackinac and Mackinac Island that British soldiers did not receive a standard daily rum ration. Those posts experienced many of the same issues and difficulties in maintaining supply lines as did Carleton Island. There is a possibility, as suggested in Whitfield (1981:43–44), that certain posts did have a standard rum ration without any general order, while it was also provided to those soldiers on fatigue labor. This might have been a possibility in urban garrisons, where access to spirits would have been greater. This was less likely on the frontier and does not seem to be the case for Carleton Island, as supported by the data in Table 6.9 and Table 6.10. From the information in these tables, it is possible to conclude that late in the war, less than a third of the soldiers were able to augment their pay through fatigue work and have access to the rum ration (Haldimand 1758–1785, 21759: 15 Sept 1782; Haldimand 1758–1785, 21854: 24 June 1781).

The total amount of rum being transported on the St. Lawrence is misleading if it is assumed that it is for the consumption of the soldiers. Table 6.9 does not tell the whole story with respect to consumption. As illustrated by Table 6.10, only a small proportion would have gone to soldiers. A shipping hub like Carleton Island possessed a great deal more rum in storage than was available for its soldiers, sailors or civilians. A provision return dated June 1782 indicates that Carleton Island had 4,290 gallons of rum ready for transport in its storehouses (Haldimand 1758–1785, 21854: 24 Aug 1782), but a garrison return of Fort Haldimand provisions a month later indicates that only 16 gallons are in store for that post (Haldimand 1758–1785, 21759: 10 Sept 1782). This information also supports the much lower than expected consumption rate of rum for the soldiers of the garrison.

In contrast to rum, spruce beer was a beverage distributed to the British troops in Canada in large quanti-

ties, and was also produced by civilians in Québec (Westbrook 1997; Whitfield 1981:43). It had the advantage of being easy to produce in remote areas, but the most important aspect to the distribution of spruce beer was its medicinal affect; it was used to fight scurvy in the garrisons. This drink was a mixture of the outer, newly sprouted branches of the spruce tree, boiled with molasses and fermented with yeast. Decades earlier during the 1759 Ticonderoga Campaign of the French and Indian War, General Jeffery Amherst felt that spruce beer was important enough for the health of his men that he recorded the recipe in his journal:

Take 7 pounds of good spruce and boil it well till the bark peels off, then take the spruce out and put three gallons of molasses to the liquor and boil it again, scum it well as it boils, then take it out of the kettle and put it into a cooler; boil the remainder of the water sufficient for a barrel of thirty gallons, if the Kettle is not large enough to boil it together; when milkwarm in the cooler put a pint of yeast into it and mix well. Then put in the barrel and let it work for two or three days, keep filling it up as it works out. When done working bung it up with a tent peg in the barrel to give it vent now and then. It may be used in two or three days after. (Westbrook 1997:510–511)

It is difficult to discern just how much spruce beer was being consumed in each of the remote locations in Canada, as the official returns for the supply of the spruce beer are organized not by specific location or garrison, but by the regiment's total consumption. These returns do indicate, however, that the standard ration of spruce beer was maintained at three pints per man per day. For the period of December 25, 1780, to June 24, 1781, the first battalion of the 84th regiment in Canada consumed 36,768 and seven-eighths gallons of spruce beer (Haldimand 1758–1785, 21854: 24 June 1781, 24 Dec 1781). We do know that spruce beer was issued at Carleton Island; material culture associated with the distribution of spruce beer has been uncovered at several locations in or near Fort Haldimand, including the

**Table 6.10.** Return of Rum Daily Issued at Carleton Island.

		No. Days	No. Men	Gallons	Pints
Engineers Dept	Artificers contracted	1	5	—	2 ½
	Men belonging to diff. detachments	1	53	2	4 ¾
Naval Dept	Civil artificers of the dock yard	1	28	1	6
	Men attending the dock yard	1	39	2	3 ½
	Sailors on board the shipping	1	127	7	7 ½
<b>Total</b>		<b>1</b>	<b>252</b>	<b>15</b>	<b>— ¼</b>

Source: Haldimand 1758–1785, 21759: 15 Sept 1782.

author's excavations. A keg tap of the type used to distribute spruce beer was uncovered, similar to those described by Westbrook for use in the distribution of spruce beer (1997:508–509). The valve on these taps had a unique key to make sure only authorized persons could draw the contents. The example discovered at Fort Haldimand is broken at the top of the valve, perhaps in an effort to circumvent this key. This idea is supported by the discovery—near the location of the keg tap—of the brass "keyhole" fixture for the top of the valve in a twisted, bent condition.

In addition to the material culture for the distribution of spruce beer, archaeological evidence for beverage storage is represented primarily by 317 fragments of green bottle glass recovered in the barrack excavations for a combined weight of 1.28 kilograms. Of these, only 22 were identified as base fragments and two more as lip fragments. By comparison, a nearly intact hand-blown green wine bottle from the underwater excavations at North Bay, Carleton Island, weighs approximately .75 kilograms. All of the identified bottle forms recovered are typical of the varieties utilized in the second half of the eighteenth century (Jones 1986; Jones and Smith 1985). Only seven fragments could be reliably identified as cased bottle fragments.

The relatively low number of bottle fragments could be explained in several ways. It might have represented a restriction on alcoholic beverages imposed by the officers, as drunkenness among soldiers was common (Conway 1990:382–383). Without a large civilian population in the vicinity, officers on the frontier were in a position to exert control over the soldiers' access to spirits and alcohol in a manner that was not possible in an urban garrison. While alcohol consumption for soldiers was more commonly in the form of rum and beer, consumption of wine was not unheard of and is exhibited in the wine bottle fragments found at Fort Haldimand. The small proportion of bottle glass could also figure into the behavior pattern of how the soldiers chose to consume alcohol. There is no reason to assume that the soldiers on Carleton Island were more temperate than their colleagues at other posts. It may simply be that this activity was removed from the barracks location. Certainly areas near the river would allow for the easy disposal of bottles and other evidence of this activity, so that it could be hidden from officers. The regular appearance of wine bottles in archaeological collections from North and South Bay supports this possibility (Murphy 1976; Charles Bender, personal communication 1999). The difficulties of transport and the control over the civilian trade would have limited the availability of these items on Carleton Island. The archaeological pattern of bever-

age storage at Fort Haldimand could reflect not just aspects of control over consumption by the officers but a restricted availability on the frontier.

## CONCLUSIONS

The British soldier on the North American frontier was far from home and often isolated from any large towns or cities. This created challenges in maintaining supply lines—already a difficult task—unknown in most other regions where the British Army operated in the late eighteenth century. Foremost among these challenges was the lack of civilian infrastructure from which supplies could be purchased or traded and the great distance needed for transport of provisions. In fact, the needs of the army put a strain on agricultural production throughout Canada. There simply was not enough land under cultivation in Canada to supply the military in wartime (Treasury Documents 1547–1930, 64/1023). With concern for provisions stretched from Québec, Montréal and the Great Lakes, those posts on the periphery would suffer the greatest shortages.

With the records available to examine the lives of the Royal Highland Emigrants, we are able to look at a particular group of soldiers who were impacted by the administrative system for procuring and distributing provisions. The excavations for this project uncovered an occupation level associated with a soldiers' barrack late in the war. With greater numbers of troops at garrisons in the Great Lakes, the already pressing need for provisions was amplified. At Fort Haldimand the lack of a local infrastructure for the supply of provisions to the military establishment was surmounted in a number of ways. The encouragement of agriculture at the upper posts met with indifferent results; it could not be relied upon as a means to supply the soldiers and the military dependants. After the war, land grants to soldiers to encourage the establishment of local townships would help alleviate the strain on the upper posts for the British military in the long term, but they were of no assistance during the American Revolution.

Carleton Island saw no major battles but served as an active port and garrison. The historical and archaeological evidence shows us that soldiers on the island did their utmost to adapt to the circumstances of the crowded barracks in Fort Haldimand. The faunal analysis provided numerous examples of utilization of local food resources. Obtaining it was carried out under the strict discipline of the British Army, where soldiers' daily activities and behavior were under constant scrutiny. It is clear that fish from the river was a significant resource for the soldiers. Fishing was likely a more favorable

option for the officers of the garrison, who could exercise a greater measure of control over the soldiers than possible if they were hunting in an area far removed from the garrison.

The historical documents related to Carleton Island rarely mentioned the exploitation of the St. Lawrence River as a source of provisions. The archaeological evidence shows the use of a great variety of fish from local waters, and the discovery of fishhooks in the midden confirms this as a soldiers' activity. Livestock, primarily pigs, was raised on Carleton Island in an effort to provide local provisions. However, the amount of livestock never reached a level at which they could have been a reliable source of local provisions. The exploitation of the fish from the river remained the primary source for the common soldier to augment his standard ration. The details from the archaeological and faunal analysis confirmed aspects of military provisioning we understood from the historical record and provided new information on the soldiers' diet and provisions.

## ACKNOWLEDGMENTS

The work of Charles Fisher will always be noted for high standards in fieldwork, research and scholarship; I am honored to contribute to this volume published in his memory. I am grateful for the assistance of the faculty, undergraduate and graduate students in the Departments of Anthropology at SUNY Oswego and Syracuse University, who assisted in this work. Marie Lorraine Pipes conducted the zoarchaeological analysis, and I appreciate her diligent efforts. I am grateful to all of my dissertation committee members, including Christopher DeCorse, Douglas Armstrong, Theresa Singleton, Shannon Novak and Brian Osborne, for their help and support of my research. The Thousand Islands Land Trust provided much support over the years, and I appreciate their cooperation with the Fort Haldimand project. Many volunteers have generously participated in the excavations—including many family members. I am grateful to all for their assistance and commitment to this project. Any mistakes are, of course, my own.

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# CITIES





## HART TYLES AND HISTORIES: Dutch Bible Tiles in Eighteenth-Century New York

Leslie E. Gerhauser

This study is an analysis of Dutch Bible tiles present in eighteenth-century New York City, the Hudson River valley, and Albany, New York, and is intended to contribute to our current understanding of their design sources and popularity and to suggest possibilities for future research. Although tiled fireplaces with traditional New York histories have survived in situ, some degree of restoration has been involved in each case. Recovered archaeological material is, therefore, the most reliable evidence of the quantity and types of tile imported and utilized. The tiles selected for this paper were unearthed from eighteenth-century contexts, or are associated with earlier structures. Existing scholarship was employed to determine print sources, date range, and production centers. Contemporary documents were used to trace evolving tastes and biases concerning the role of Bible imagery in the New York Dutch home. Information was drawn from primary source manuscripts, including merchant Robert Sanders' account and letter books and shipping invoices, which record shipments of Dutch Bible tiles with and without text, as well as the sale of "hart Tyles." Newspaper advertisements provided a means to explore marketing strategies. Although a gradual change in available tile types is observable, Dutch Bible tiles were in demand until the last quarter of the eighteenth century.

The first part of the study deals with selected excavated fragments, most of which had been catalogued contextually and materially. Artifact worksheets and catalogues for smaller and partially decorated fragments, however, were often incomplete and in some cases non-existent. Type of decoration (whether biblical or other), date, or production center may not have been identified. Through the use of published sources on Dutch Bible tile iconography and the existing formal diagnostics, this study has established the scenes depicted on many small, decorated fragments previously identified only as "Dutch" or "18th century." A careful analysis of corner motifs and other stylistic traits has revealed specific date ranges, production centers, and series, and allowed for certain fragments to be

assembled into distinct groups, thereby improving the status of the visual and textual record. Many fragments found at Albany-area sites can now be securely identified as mid-eighteenth-century Utrecht production.

The second part of the study deals with intact installations with traditional or established eighteenth-century histories. Tiled fireplaces at historic properties frequently employ whole Bible tiles with easily recognizable scenes. The effect is aesthetically satisfying, but the date and design of the tiles used often conflict with the associated hearth, mantel, or known structural history of the property. The goal of this study was to compare the two bodies of evidence (the recovered fragments and the intact installations) to determine the most likely Bible tile types available in eighteenth-century New York. A closer look at tile fragments recovered from the grounds of a given historic property can confirm, or at least support, reported proveniences of loose, whole examples in its collection. Recovered fragments can also establish the authenticity of a property's existing Bible tile installation, or indicate that renovation or restoration has occurred. In the third part of this study, the above evidence is paired with contemporary documents that prove that specific Dutch Bible tile types were ordered by retailers and sold to consumers.

More than just decorative or aesthetic convention, eighteenth-century biblical imagery was inextricably linked to seventeenth-century verbal and visual conventions wherein narrative scenes, symbols and emblems conveyed multiple meanings. The images appearing on Bible tiles, as well as those in other media such as furniture, textiles, and metalwork, employed the familiar iconography of illustrated Bibles and were a means of religious education in the eighteenth-century New York Dutch home. The scenes depicted served as didactic tools to encourage purposeful and meaningful lives.

Bible tiles as Dutch goods were 'culturally loaded' objects. Commercial records reveal that the trade in tile played a significant role in the communal order, speaking to factors other than religion. New York's Dutch families, related by marriage as well as mercantile part-

nership, formed a close social network. This study has made particular use of the accounts and business correspondence of merchant Robert Sanders. Through his Amsterdam agents, Sanders arranged for shipments of Bible tiles and contraband Dutch goods to be smuggled into the colony. He adjusted pricing for certain relatives and associates. The challenge faced in this study is to determine whether the Bible tiles listed in Sanders's accounts, as well as the great quantity of fragments in the Albany archaeological record, truly indicate an ethnically insular and resistant Dutch colonial identity, one less heterogeneous than Lower Hudson and New York City markets.

## THE PROJECT AND DEVELOPMENT OF TOPIC

In early 2005, the Metropolitan Museum of Art initiated the re-interpretation of the New York Dutch period rooms in the American Wing, a project that included components removed from the deteriorated 1750 Daniel Pieter Winne house in Bethlehem, New York. Among the many materials found on the property were two closely similar fragments of blue and white fireplace tile. Both fragments appeared to be Dutch manufacture from about 1750. The original house featured a Dutch-style jambless fireplace that was replaced by an English-style hearth, installed around 1800. The larger of the two fragments was discovered under and beneath the later firebox (Kenny 2006:179). The surviving portion of this tile exhibits the text "IOAN. 20," which indicates that the imagery is a New Testament scene (Figure 7.1).



**Figure 7.1.** Cobalt blue tile fragment ca. 1750 recovered from the Daniel Pieter Winne House, Bethlehem, New York. Made in Utrecht, the Netherlands.

The Metropolitan Museum of Art, Emily Crane Chadbourne Fund, 2003 (NYDR.2003.1).

With the support of Peter Kenny, curator of American decorative arts and administrator of the American Wing, I began an analysis of the two fragments. This quickly became an evaluation of painted decoration and production paired with an investigation of archaeological and documentary evidence. In order to facilitate identification, I consulted works by the acknowledged authority on Dutch Bible tiles, Jan Pluis, namely *Bijbeltegels: Bijbelse voorstellingen op Nederlandse wandtegels van de 17e tot de 20e eeuw*, Munster, 1994, and *De Nederlandse Tegel: Decors en Benamingen 1570–1930*, Leiden, 1997. In this study I have used Pluis's diagnostics concerning design sources, regional painting characteristics, and distinctive corner motifs to identify the subjects and attribute the centers of manufacture. Date ranges are in some cases supported by documentary evidence, an established provenance, or fixed archaeological context dates.

In April of 2005 the recreation of the Winne house's jambless fireplace was completed using 28 roughly period-accurate tiles selected from examples already in the collection of the Metropolitan Museum. Among the earliest examples were 13 blue tiles from one series, probably produced at Amsterdam and dateable to the first half of the eighteenth century. This group of Old and New Testament scenes was chosen for the installation because it best represented the sort of tiles that would have been available to Daniel Pieter Winne in about 1750. Later eighteenth-century Frisian Bible types, selected from loose examples already in the collection of the Metropolitan Museum, completed the scheme.

## HISTORIES

In his letter to Peter Burdett dated 3 November 1773, Benjamin Franklin mused that

As the Dutch Delphware tiles were much used in America, which are only or chiefly Scriptural Histories, wretchedly scrawled, I wished to have those moral prints (which were originally taken from Horace's Poetical Figures) introduced on Tiles, which being about our Chimneys, and constantly in the Eyes of Children when by the Fireside, might give Parents an Opportunity, in explaining them, to impress moral sentiments . . . [Wilcox, ed., 1976:20, 459–460]

In introducing "Horace's Poetical Figures" to tiles, Franklin aspired to designs he had seen in "Plates that had been used in a thin Folio, called *Moral Virtue Delineated*" (Wilcox, ed., 1976:20, 459–460). This work has not been identified, but we can assume it was widely available during the eighteenth century. Its "Poetical

Figures" were probably copied from prints found in various early seventeenth-century editions of *Q. Horati Flacci Emblematum*, first published in Antwerp in 1607 by Otto van Veen (1556–1629), which included works by Cornelius Galle (1571–1633), Peter de Jode (1570–1634), and other Flemish artists. Other possible examples of influential allegorical imagery include the engravings of Jan Luyken (1649–1712), alternately Luiken, found in Johannes Aysma's *Spiegel der sibyllen van vierderley vertooningen*, published in Amsterdam in 1685, and Luyken's own *Beschouwing der wereld, bestaande in honderd konstige figuren: met godlyke spreken en stichtelyke verzen/ door Jan Luiken*, Amsterdam, 1708.

Franklin's frustration with the slapdash quality of the production speaks to the relative abundance of scripture tiles in the eighteenth-century colonies. A strong visual and textual tradition informed even these "wretchedly scrawled" examples. Seventeenth-century engraver-printers such as the Amsterdam publishers Claes Jansz. Visscher (1586/1587–1652), his son Nicolaes Jansz. Visscher I (1618–1679), and grandson Nicolaes Jansz. Visscher II (1649–1702) specialized in pirating and reprinting engravings from popular illustrated religious and allegorical works. As they built up a sizeable stock of existing plates, compositions were often re-cut, or copied in reverse. Reduced-scale images formatted three to eight vignettes per leaf were known as *snijlings*, or clippings. A given leaf could be left intact for large scale volumes, but frequently individual scenes were cropped and subsequently bound into smaller volumes known as "picture Bibles" or "story books." In Dutch, as well as English, these small books were known as *histories*. Rather than entire scriptural passages, only a short, moralizing text accompanied the illustrations (van der Coelen 1996:37–60).

## IDENTIFYING HISTORIE SCENES ON TILES

Dutch *historie* prints were easily translated into designs for tile. As had successive generations of engravers, tile painters traced, reversed, and re-interpreted the compositions, and in this way disseminated countless permutations of the original iconography. The *historie* engravings appearing in the *Iconum Biblicarum* published by Matthaeus Merian (1621–1681) in Frankfurt in 1627 and again in Strasbourg, 1630, and those used in Nicolaes Visscher's *Historiae Sacrae Veteris et Novi Testamenti*, ca. 1660 (and various editions) are the design sources for many Dutch tiles. The most easily appreciated, however, are the engravings by Pieter Hendricksz. Schut (1619–1660), appearing in *Toneel ote Vertooch der Bybelsche Historien*, first published in Amsterdam in 1659 by Nicolaes Visscher, and subsequent similarly

titled editions including *Historien des Ouden en Nieuwen testaments vermaeckelyc afgebeelt, en geëst door P. H. Schut*, published in Amsterdam, ca. 1660 (hereafter Schut ca. 1660). The title, *Afbeeldingen Van de Heilige Historien Des Ouden en Nieuwen Testaments*, first published in Amsterdam ca. 1700, again at Rotterdam in 1734, and in print until 1779 is a likely source for mid-eighteenth-century tile production, as it was continuously available. Schut's print series and closely similar series were still in use at Dutch factories well into the late nineteenth century (Pluin 1994:61–79).

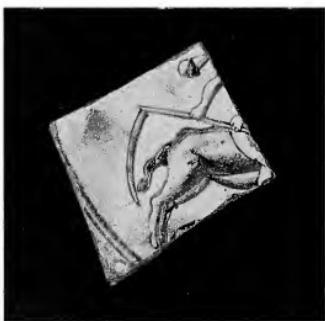
The Metropolitan Museum of Art's Drawings and Prints collection contains 14 debased Bible *historie* prints, cut from an unidentified source, and currently identified as "German – XVII century – after Merian?" (MMA accession numbers 61.663.291–304). These engravings are inscribed in a Netherlandish dialect, not German. They are not signed in the plate, but they are clearly based on the engravings of Schut and may date to about 1700–1750. Old and New Testament scenes include Moses and the Brazen Snake, David at His Harp, The Fall of the Walls at Jericho, Daniel's Visions, The Annunciation, and Jesus at the House of Nicodemus.

Many intact loose and in situ tiles as well as archaeological fragments recovered in Albany and housed in the archaeological collections of the New York State Museum show compositions identical to or relatable to Schut's engravings. The surviving portion of a cobalt blue tile fragment (NYSM catalog no. A87.5.306.8), recovered from the Key Corp site located on the south side of Norton Street, east of South Pearl Street in Albany, shows a snake entwined around a staff. The composition closely corresponds with the *Moses and the Brazen Snake* print in the Metropolitan's "after Merian?" series that depicts the Old Testament scene, Numbers, Chapter 21, Verse 8. The original print source appears as Plate 47 in Schut ca. 1660. This tile fragment was deposited between two units (Units 12 and 13), at Level 5, within a shallow basement associated with the remains of the house of Volkert Jansen Douw, a fur trader and member of the Lutheran minority in Beverwyck. The house was built probably as early as 1647, and was converted into the Reformed Church's Almshouse in 1685. Artifacts in Level 5 included sherds of delft slip-decorated red earthenware, salt-glazed Rhenish stoneware, porcelain, and tobacco pipe stems—all ceramic types that support a late seventeenth-century context. As per Fisher, the Level 5 deposit developed during the Almshouse period, and before Level 4, the early- to mid-eighteenth-century stratum above it that contained a tobacco pipe with the RT mark of Robert Tippets, (1678–1713, poss. to 1720). This tile may have been in Douw's house and discarded during the 1685 renovation/building of the Almshouse (Fisher

ca. 2006:4–5). The Moses fragment is an early example of Dutch Bible tile production, dateable to the last quarter of the seventeenth century to the first decade of the eighteenth century.

Later tiles with painted scenes directly related to Schut include a manganese purple fragment (NYSM catalog no. A-A2002.20.0017.039.1) (Figure 7.2) recovered from the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany. The portion of a figure with a scythe on horseback illustrates the New Testament scene, The Four Horsemen, Revelations, Chapter 6, Verse 2. The composition is identical to that seen in Plate 138 in Schut ca. 1660 (Figure 7.3).

Located east of Dean Street and south of Maiden Lane, the SUCF site yielded materials from earlier colonial settlements that were deposited in the waterfront landfill. The Horsemen fragment, recovered from Unit 1.03, Level 3 (Fisher ca. 2006:6–7), is Dutch and was probably produced at Utrecht. Another group of similar manganese purple sherds labeled NYSM catalog no. A-A2002.20.666.23.1–13 includes two individual fragments that show pairs of men's feet walking toward the left (Figure 7.4). These sherds mend to form part of the Old Testament scene The Spies of Canaan. Other subjects depicted in this group are not easily recognizable; however, the fragment showing the forelegs of a quadraped may be a portion of the Old Testament scene *Belaam and the Ass*. The example with the dashed outline of a halo indicates a representation of Jesus, and is therefore a New Testament scene. The context for this



**Figure 7.2.** Manganese purple tile fragment recovered from the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany (NYSM A-A2002.20.0017.039.1). The portion of a figure with a scythe on horseback illustrates the New Testament scene, The Four Horsemen. Made in Utrecht, the Netherlands.

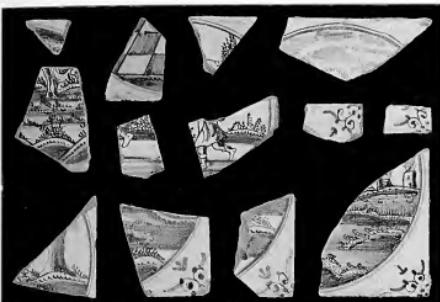
Copyright New York State Museum, Albany, NY.

group is not recorded, but the sherds relate to other manganese fragments recovered from nearby units and levels. Those with identifiable subjects include the Old Testament scene the Expulsion from Eden (NYSM catalog no. A-A2002.20.542.008) recovered from Unit 4.8, Level 3 (Figure 7.5), and New Testament scenes Pilate (or possibly Herod and Salome) (NYSM catalog no. A-A2002.20.521.21R) recovered from Unit 4.7, Level 6, and The Flight into Egypt (NYSM catalog no. A-A2002.20.159). This last example was recovered from Context 1093, (gen. prov.) (Fisher ca. 2006:6–8). The lower central ground shows, "MAT", a portion of the inscription for Matthew, Chapter 2, Verse 14. The textual element dates the tile to no earlier than the first decade of the eighteenth century, since book, chapter, and verse inscriptions do not appear on Bible tiles until that time. In contemporary documents inscribed types are commonly referred to as *met text* or *texten*.

Each of the above-mentioned manganese fragments exhibits roughly the same tile thickness, glaze, and style of painted decoration with curled, wire-like foliage, but there are two distinct corner motifs present. For example, the Expulsion's corner motifs are a type of Utrecht dotted stem *ossekop*, or oxhead, with shorter, more curved horns and an open 'crown' or foliate motif in the form of  $\perp$ , or an inverted "T." This is characteristic of earlier production. Other fragments with this same oxhead are present within the group seen in Figure 7.4, at center row, right and bottom row, right. Since the Expulsion and Spies of Canaan are Old Testament scenes



**Figure 7.3.** New Testament scene, The Four Horsemen, Revelations, Chapter 6, Verse 2, Plate 138 in Pieter Hendricksz. Schut, *Historien des Nieuwen testamente vermaeckelyck aangebeelt, en geëstet door P.H. Schut . . . [166-]*. General Research Division, The New York Public Library, Astor, Lenox and Tilden Foundations.



**Figure 7.4.** Group of similar manganese purple tile fragments recovered from the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany (NYSM A-A2002.20.666.23.1–13).

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and are painted with similarly concentrated pigment, they are probably examples from a series dateable to the last quarter of the seventeenth century.

The second type of Utrecht dotted stem oxhead can be seen on the sherds in Figure 7.4 in the bottom row, center. Here the horns are slightly less curved and the crown motifs are rendered more like trefoils. This form is associated with the early-to mid-eighteenth century. The New Testament scenes—the “halo” sherd, Pilate, Horsemen, and Flight into Egypt—probably displayed this later oxhead motif. It would be useful to assemble all of the above-mentioned manganese sherds as a group and obtain additional information concerning their individual contexts to more securely date and associate surviving corners and central scenes.

Numerous cobalt blue fragments recovered from the SUCF site correspond with Schut’s compositions. Fragment NYSM catalog no. A-A2002.20.996.045.23 (Figure 7.6) shows a portion of the Old Testament scene, Jacob Wrestling with the Angel, Genesis Chapter 32, Verse 24, Plate 23 in Schut ca. 1660. The fragment’s corner motif has not survived, but the tile thickness, density of pigment, and style of painted decoration are consistent with blue double roundel fragments (NYSM catalog no. A-A2002.20.316.30.1–4) that were recovered from Unit 3.4, Level 7 west (Figure 7.7). This group shows portions of the Old Testament scene Belaam and the Ass. One fragment with a corner motif exhibits an early-to mid-eighteenth-century Utrecht dotted stem oxhead. This deposit also contained mid-eighteenth-century English ceramics such as cream colored earthenware and white salt-glazed stoneware (Fisher ca. 2006:7).



**Figure 7.5.** Manganese purple tile fragments depicting the Expulsion from Eden, recovered from Unit 4.8, Level 3, the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany. Made in Utrecht, the Netherlands (NYSM A-A2002.20.542.008).

Copyright New York State Museum, Albany, NY.



**Figure 7.6.** Cobalt blue tile fragment showing a portion of the Old Testament scene depicting Jacob Wrestling with the Angel (NYSM A-A2002.20.996.045.23). Recovered from the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany.

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**Figure 7.7.** Group of similar cobalt blue tile fragments recovered from Unit 3.4, Level 7 west at the SUNY 600 Parking Garage/State University Construction Fund [SUCF] site in Albany (NYSM A-A2002.20.666.23.1–13).

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## DUTCH OR ENGLISH?

Although the Dutch and English hand-painted tin-glazed earthenware industries flourished concurrently from about 1680 to 1780, by the 1700s the Dutch dominated the production of fireplace tiles. Writing in 1703, Englishman Richard Neve admired the quality of "Modern Dutch Tyles," noting they were

commonly used instead of Chimney-Corner-Stones (being plaster'd up in the Jambs) These Tyles seem to be better glaz'd, and those that are Painted (for some are only white) are done with more curious Figures and Lively Colours than the ancient ones: But both these sorts seem to be made of the same whitish Clay as our white glazed Earthen Ware. The *Modern* ones are commonly painted with Birds, Flowers etc and sometimes with Histories out of the New Testament. [Richard Neve, *City and Country Purchaser*, 1703 first edition, in Ray 1973:37]

The quantities of English tiles painted with Bible imagery never reached the scale or scope of the Dutch industry. In England, the production was concentrated in three centers: London, Bristol, and Liverpool. Bible tile production dropped dramatically after about 1760. At this time English manufacturers chiefly marketed tiles decorated in the contemporary rococo and chinoiserie tastes (the latter in response to the Chinese porcelain coming through the Dutch and English markets)

and examples in the neoclassical style. The last type was usually transfer-printed. Tile dimensions were rigidly standardized in both countries. Late-seventeenth century tiles are about  $\frac{5}{8}$  of an inch (1.6 cm) thick and roughly  $5\frac{1}{4}$  to  $5\frac{1}{2}$  inches (13.3 to 14 cm) wide. Eighteenth-century tiles measure 5 x 5 inches (12.7 x 12.7 cm), or just a fraction over that, and are about one-quarter inch thick. Dutch corner motifs are distinct from English (Ray 1973:33–43, 62–63). In the Netherlands, Bible tiles were manufactured at four areas, namely Utrecht, Rotterdam, Amsterdam, and Friesland.

## TILES IN NEW YORK CITY

Fireplace tiles have been found at eighteenth-century New York City sites. Recovered from mixed commercial and domestic settings, these frequently exhibit imagery other than biblical, and English examples are present in greater number than Dutch. Tiles were excavated at the Barclays Bank/75 Wall Street site in lower Manhattan. Formerly at the South Street Seaport Museum, these materials are now in the collection of the New York State Museum, Albany. A deposit in Lot 18, Historic Context 3 yielded two late-seventeenth- to early-eighteenth-century Dutch or possibly English examples (provenience HC3, artifact numbers 88.9.171 and 88.9.174)<sup>1</sup>. Painted in blue with spiderhead corner motifs, each tile depicts a pair of figures in a pastoral landscape. In contemporary documents this type is referred to as "shepherd." In the late seventeenth century, Lots 26 and 18 were held as a single unit by the landowner Christina Veenvos, and in tax records of 1702, Veenvos reported two houses on the property, both occupied by tenants. The lots remained single until at least 1732. During the 1780s, the Lot 18 property was occupied by silversmith Daniel Van Voorhis. For the full occupancy history and interpretation of the construction and demolition sequences and depositional units at the Barclays Bank/75 Wall Street site (site number 1283; artifacts are from the following proveniences within accession 88.9: Lot 26, HC1 and Lot 18, HC3), see Berger and Associates 1987:VI:6 and VII:39–58.

Found among the Van Voorhis basement refuse, the "shepherd" tiles are probably from one of the houses built by Christina Veenvos, and may have been part of a wall or fireplace installation. Identical material and decorative characteristics indicate that both tiles were from the same manufacture. Another tile (from provenience HC3, artifact number 88.9.150) recovered from this deposit was produced around 1750 to 1775 and is more closely related to the Van Voorhis occupancy of the property. It shows an urn, or perfume burner, with stylized garland and a scrolled acanthus cartouche. The

origin for the tile design appears in an eighteenth-century pattern book in the Hannemahuis at Harlingen, Friesland, in the Netherlands. Examples of this pattern certainly occur in Dutch production, often in manganese, but the corner motif on this example is identical to those found on English tiles produced at Liverpool (Ray 1973:224, no. 545).

### TILES AT ALBANY: FRISIAN HISTORIES AND UTRECHT HISTORIES MET TEXT

Relative percentages of tile types recovered at Albany differ from the Barclays Bank/75 Wall Street site in New York City. The majority of the Albany examples are Dutch, rather than English, tile production. There are many examples of landscape scenes, yet remarkably, over 50 percent of the tiles unearthed from local properties or heaped into landfill were Bible tiles, showing both Old and New Testament scenes in about equal number. Date, production center, and corner motifs vary, but deposits evidence primarily Utrecht and Frisian production. Numerous deposits yielded *basterde histories* and *histories met wolken* series (literally “bastardized stories” and “stories with clouds,” respectively—so called because of their crude, reductive imagery of sponged trees, lumpy hills, and dashed clouds within a double roundel). These types were produced at the Frisian centers of Makkum or Harlingen from the beginning of the eighteenth century until the last quarter of the nineteenth century (Pluis 1994:43–53). An oxhead tile recovered from the City Wall site in Albany (NYSM catalog no. A-A2000.40c.126.052.1) is a *basterde historie* type from the mid-eighteenth century (Figure 7.8). The figure’s long robe suggests it is most likely a depiction of Jesus, and therefore a New Testament scene. It was recovered from the waterline trench on the east side of Pearl Street near Columbia Street at the City Wall site, about 4 m (13 ft) west of the location of the site of the ca. 1710 Lansing/Pemberton House. A large quantity of mid-to late-eighteenth-century artifacts including cream-colored earthenware, white salt-glazed stoneware, porcelain, lead-glazed earthenware, and tobacco pipes with the mark of Robert Tippets also were found in this context (Fisher ca.2006:3).

An example with a *spin* or spiderhead corner motif is a *historie met wolken* type (Figure 7.9) that probably depicts the New Testament scene Jesus and the Travelers to Emmaus. This fragment is from the archaeological tile collection housed at Historic Cherry Hill, Albany, formerly the ca. 1787 Philip van Rensselaer Mansion. The tile is included in demolition debris that was probably from the farmhouse of one Hitchin



**Figure 7.8.** Mid-eighteenth-century cobalt blue *basterde historie* tile fragment recovered from the City Wall site in Albany (NYSM A-A2000.40c.126.052.1). Made in Friesland, the Netherlands.

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**Figure 7.9.** Mid-eighteenth-century cobalt blue *historie met wolken* tile fragment depicting the New Testament scene Jesus and the Travelers to Emmaus. From the archaeological tile collection housed at Historic Cherry Hill, formerly the ca. 1787 Philip van Rensselaer Mansion. Made in Friesland, the Netherlands.

Courtesy of the Historic Cherry Hill Collections, Albany, New York.

Holland, which stood on the property prior to its sale to van Rensselaer in 1767. The tile may have also come from van Rensselaer’s first and more modest house, believed to have been built in about 1768 (Historic Cherry Hill 1979:3–21). Closely similar mid-century *basterde histories* and *histories met wolken* types were also recovered at the Daniel Pieter Winne II, Parker/Winne and Staats/Winne properties in Bethlehem, New York (see Brewer 1990 and Brewer et al 2002).

A manganese purple series now at the Albany Institute of History and Art (AIHA x1940.723.28a-c) (Figure 7.10) is associated with an installation formerly at the Crailo House in Rensselaer, New York. The internal



**Figure 7.10.** Manganese purple tile series (AIHA x1940.723.28a-c). Made in Utrecht, the Netherlands.

Courtesy of the Albany Institute of History & Art, gift of Mrs. John McGraw in Memory of her mother Tamika Sheele.

Collections Management catalogue indicates that the series came into Institute's collection in 1939. It identifies the series as ca. 1725, however, the thin oxhead is a mid-eighteenth-century dotted stem Utrecht type. The worksheets provide no further information regarding the former context of this group. Their damaged condition, however, suggests they were recovered from demolition debris or removed during renovation work. Illustrations of a few individual examples in this series, as well as an illustration of the tiles in situ around an English-style hearth, appear in a small pamphlet by Will Callender, *Souvenir of the Old Dutch Mansion, Riverside Avenue, Greenbush, N.Y. Built 1642.* N.p., n.d. The text states that the tiles were recently removed, and this work was known to have occurred around 1875.<sup>2</sup>

The central tile (AIHA x1940.723.28b) is inscribed "IOAN 20.27" and depicts the New Testament scene John 20:27, the "Doubting Thomas" touching Christ's wounds. Pluis identifies the print source as Plate 109 in Pieter Hendricksz. Schut's *Toneel ote Vertooch*, Amsterdam, 1659. The same engraving appears again in Schut ca. 1660 (Figure 7.11), where the plate is inscribed "Ioan.20.26". Discrepant or even faulty verse transcriptions are not uncommon on Bible tiles. Pluis also mentions that the Hannemahuis in Harlingen has a factory model book with *sponsen* (literally, "spongings", but more like design templates or prickings), that includes a *moederspons* (mother design) for the IOAN 20.27 composition that is numbered "72," in this instance the manufacturer's template number (Pluis 1994:914-915 and 713: Plate 175).

The central ground of the Daniel Pieter Winne House fragment is inscribed "IOAN 20." (see Figure 7.1), and depicts the same scene as the Crailo tile. Similarly painted examples from a blue New Testament series (AIHA 1944.38.3a-d) were given to the Albany Institute in



**Figure 7.11.** New Testament scene, Doubting Thomas, John, Chapter 20, Verse 27, Plate 109 in Pieter Hendricksz. Schut, *Historien des Nieuwen testaments vermaeckelyck afgebeelt, en geestd door P.H. Schut ... [166-].*  
General Research Division, The New York Public Library, Astor, Lenox and Tilden Foundations.

1944. One example (AIHA 1944.38.3d) (Figure 7.12) inscribed "ACTO.12.5" illustrates Peter's Escape. The donor, Howard J. Pemberton, believed the tiles to be from the ca. 1710 Jacob Gerritse Lansing House in Albany, later known as the Pemberton House, which was demolished in 1893 for the construction of an addition to Albany Business College on the site (Charles L. Fisher, personal communication May 2005).

The Institute's blue series shows dotted stem oxheads with thin, only slightly curved horns and full, more open crowns that identifies them as mid-eighteenth-century Utrecht production (also see Figure 7.7). The concentration of the cobalt pigment, the width of the double roundel, the shading of the floor

tiles, and delineation of the inscription are nearly identical to the Daniel Pieter Winne House fragment. All possess a *met text* trait unique to Utrecht, that is, block serif text incorporated into the composition itself, rather than text set within a rectangular or oval reserve below the pictorial plane. The intact Daniel Pieter Winne House tile is contemporaneous with the house's 1750 construction, and therefore would have exhibited the same Utrecht dotted stem oxhead corner motif. A fragment of the same mid-century type was excavated in the 1940s by Reginald Pelham Bolton and others at the admittedly poorly documented Blue Bell Tavern site at 181<sup>st</sup> Street and Broadway in New York City. The fragment (N-YHS INV.6048.1) is currently in the archaeological collection at the New-York Historical Society (Figure 7.13). It is inscribed "MAT. 25.15" (Matthew, Chapter 25, Verse 15), which represents the New Testament scene, the Distribution of the Talents, and corresponds to engravings in Schut ca. 1660, Plates 75 and 79, and earlier print sources, Merian's *Iconum Biblicarum* of 1630 and Visscher's *Historiae Sacrae* ca. 1650 (Pluis 1994:474, Plate 1454).



**Figure 7.12.** Cobalt blue tile. Made in Utrecht, the Netherlands (AIHA x1940.723.28b).

Courtesy of the Albany Institute of History & Art, gift of Howard J. Pemberton.



**Figure 7.13.** Mid-eighteenth-century cobalt blue tile fragment depicting the Distribution of the Talents (N-YHS INV.6048.1). Recovered from the Blue Bell Tavern site at 181<sup>st</sup> Street and Broadway in New York City.

Archaeological Collection of the New-York Historical Society.

## TILED FIREPLACES—WHAT ARE OUR MODELS?

Unlike the hooded fireplaces and high, arched, horror vacui *smuigers* of the Netherlands, New York Dutch-style jambless fireplaces employed relatively few tiles. Yet, just as in the Netherlands, the height of the mantel was set by the height of thirteen tiles (Blackburn and Piwonka 1988:150). By the latter half of the eighteenth century, nearly all jambless hearths had been converted to English-style jambed fireplaces. Securely dating an *in situ* installation can prove challenging. Frequently, existing tiles were removed from a jambless format and re-set around a jambed hearth or within the firebox as panels. Additional tiles from unrelated series, produced at different centers, and from a broad range of dates would be used to fill small gaps or large expanses. The Ferry House installation at Van Cortlandt Manor House in Croton, New York, has a jambed hearth original to the ca. 1730 structure (Sleepy Hollow Restorations 1959b:83–86); however, the authenticity of the surrounding blue Bible tile installation is compromised, since there are at least four distinct Old and New Testament series present, and their stiff, parallel oxhead horns and the presence of text reserves indicate they were produced in Utrecht in the late nineteenth century. The manor's dining room features an Adam-type mantel that was purchased and installed at an unknown date sometime after 1830. The jambed hearth dates to the mid-eighteenth century, but the manganese purple Bible tiles surrounding it were a later addition, and are again late nineteenth-century Utrecht production. It is likely that they were installed as part of a ca. 1959 restoration effort to bring the house back to its original "Dutch" character (Sleepy Hollow Restorations 1959b:49–51). It would be very useful to look at the actual fireplace tile fragments recovered from the excavations that were conducted at the property between 1953 and 1957 under the direction of Campioli and Cotter, but they cannot easily be made available for examination.<sup>3</sup> Other Hudson Valley re-formatted installations include the north and south parlor fireplaces at the DeWint House in Tappan, New York.

Two panels of 28 tiles each (N-YHS INV.15003a,b) (Figure 7.14) were removed from Mount Pleasant, the Beekman Mansion that stood at 51<sup>st</sup> Street and First Avenue at the East River in Manhattan. They are now part of the New-York Historical Society's collection, and on display in the Henry Luce III Center for the Study of American Culture. The panels were part of the front parlor fireplace. The original carved and painted wooden chimney breast (N-YHS 1874.8) shows both Palladian and Rococo elements and dates to around the time of the mansion's construction in 1763–1764. When



Figure 7.14. Panel of cobalt blue tiles. Made in the Netherlands, ca. 1725–1775 (N-YHS INV.15003a detail).

Collection of the New-York Historical Society, gift of James W. Beekman, 1874.

the mansion was torn down in 1874, James William Beekman presented the chimney breast and the tile panels to the Society (N-YHS E-museum records and TMS catalogue reports for INV.15003a,b and 1874.8). The tiles themselves are dateable to the first half of the eighteenth century. Old and New Testament series are represented. Painted in blue, all show oxhead corner motifs, but they are a mixture of Amsterdam production with barred stems, and Utrecht and possibly some Harlingen manufacture with dotted stems. Most scenes are simply *op land*, or “on land,” meaning figures on grassy copses, but the Amsterdam examples are *met boom* (the same, but “with tree”). The Utrecht examples show figures on grass as well as on tiled floors. All the tiles are *zonder text*, or “without text,” with one exception—a tile inscribed “ACT.27.41,” the New Testament scene, Paul Shipwrecked at Malta (top row, second from left). Notably, this tile bears the mid-century Utrecht dotted stem oxhead. It is unclear precisely when the tiles were set into the extant panels, and whether the panels have always been associated with the chimney breast.<sup>4</sup> A separate group of loose and broken tiles in the collection share the same decorative scheme and date range, and bear the mid-century Utrecht dotted stem oxhead (N-YHS Z.770). This group is reported to have been installed in the mansion’s nursery room. When the structure was dismantled in 1874, the tiles were removed and incorporated into a *settle* (or bench) (N-YHS Multi MIMSY 2000 Summary Reports for Z.770

series, October 18, 1999). Damage would have occurred during the initial nursery room deinstallation, and would have been compounded when the tiles were broken free from the settle. What is unexpected is that many of the tiles incorporated into the front parlor panels are chipped, split, or broken in the same way. Even significantly shattered tiles have been set into the central grid area, leaving conspicuous gaps and exposed mortar. The use of already damaged examples suggests that the tiles had been removed from an earlier interior context, were saved, and then reformatted into the present panels. A closer examination into the known architectural history of the mansion is necessary in order to better understand this sequence.

## RENOVATIONS

The quantity of tile installations and frequency of renovations performed suggests that upkeep was largely responsible for a gradual ousting of earlier Bible tiles. For repairs, tile masons exploited what was at hand, frequently using Dutch landscape or even English ornamental tiles. The account book of Portsmouth, New Hampshire, mason Daniel Blasdell lists his clients and records his hearth tiling and repair work, the bulk of which dates between 1796 and 1805 (Blasdell 1796–1810). His accounts begin with an alphabetized list of repeat customers, and these include a James Runlett [sic] and Daniel Wentworth, both prominent Portsmouth residents whose houses featured numerous tiled hearths. Itemized bills and orders follow. Unfortunately, many pages in the book have been torn out and Rundlett’s and Wentworth’s orders are no longer present. Portsmouth follows a pattern similar to New York City in that fewer Bible tiles are represented in the archaeological record and greater numbers of late eighteenth-century and nineteenth-century replacement tiles fill older installations.<sup>5</sup>

The English-style hearth in the upstairs west bedchamber at Philipse Manor Hall in Yonkers, New York, was installed ca. 1740–1750. It incorporates two tiled panels, consisting of about 55 cobalt blue tiles each (Figure 7.15), the bulk of which show mid-eighteenth-century Utrecht dotted stem oxhead and block serif text inscriptions. Only New Testament scenes are present. The tiles are not assembled in any narrative order (which was never a concern), and the installation appears to be a nearly complete series of 100 different designs, with a few duplicates. No example of “IOAN 20.27” is in place; however, this particular tile may have originally been positioned along the base of the installation, where at an unknown date roughly six Bible examples were replaced with contemporary mid-eight-



**Figure 7.15.** Panel of cobalt blue tiles, left, in upstairs west bedchamber at Philipse Manor Hall in Yonkers, New York.

Courtesy of Philipse Manor Hall, Yonkers, New York State Office of Parks, Recreation and Historic Preservation.

teenth-century Utrecht landscape tiles. Former House Historian Ruth Seldon's internal report states that subsequent repairs occurred ca. 1920. Seldon contended that the original installation was represented by only 12 Bible tiles along the baseline and that the remaining tiles were replacements (Seldon 1976:28). Seldon may not have been familiar with corner motif diagnostics that

establish that the 12 baseline Bible tiles considerably postdate the hearth's mid-eighteenth-century construction. Their thin, rigidly parallel oxhead horns and text reserves are nineteenth- to twentieth-century Utrecht conventions. Additionally, baseline tiles, subject to damage from abrasion and impact, were more likely to have been replaced. It is more probable that these 12 Bible examples were purchased loose, around 1920, specifically for the baseline repair, and it is the Bible group with mid-eighteenth-century Utrecht dotted stem oxheads and block serif text inscriptions that is original to the hearth.

#### DUTCH GOODS AND THE ECONOMIC AND COMMUNAL ORDER

The above contexts cannot definitively indicate when distinct regions, consumer classes, or merchant markets desired or tired of Bible tiles. That Dutch goods were available to New Yorkers despite the constraints of the legislation enacted after the English conquest of 1664 is not surprising.<sup>6</sup> Dutch merchant-importers and landowners constituted over 50 percent of the populace into the first decade of the eighteenth century. They continued their established business partnerships and trade patterns. Although the importation of English goods and restricted import of foreign-made ceramics affected New Yorkers to some degree, several factors enabled Dutch tin-glazed earthenwares, including tiles, to reach New Yorkers. English merchants did not extensively alter their trading patterns during the early years of the New York colony because they were not yet able to extend their activities into the area (Ritchie 1976:7).

Shipping records indicate that from 1705 to 1716 there were two to four voyages per year to Amsterdam from New York City, and an uncertain number of illicit ones (Matson 1987:4,12). By mid-century, seizure of contraband by the city's custom house officers was an ever increasing threat, and smuggling and fencing goods taken on in the Netherlands was common. Writing to Rotterdam on 10 May 1756, merchants Greg and Cunningham notified a Mr. Herman Van Ijzenoord, that

yours as well as Mr. Greg's goods . . . are landed at Stanford about sixty miles from this place. Since . . . arrival we have had frequent alarms with our custom house officers, the other day they seized a large parcel of goods . . . at present there is no such thing as bringing any contraband to Town, so I have sent a sloop to carry what goods I had . . . to a place of great safety, where they must lye to I get a proper opportunity [sic] to bring them. (to New York) [Greg and Cunningham 1756–1757]

Farther upriver at Albany, many non-Dutch traders had opened shop. During the 1760s, the influx of settlers of English ancestry precipitated clashes with the established Dutch merchants, further pressuring the Dutch community to assimilate into the Anglo main (Armour 1986:228–239). Although the critical change from Nieuw Nederlander to anglicized New Yorker certainly began during the first and second decades of the eighteenth century, there is evidence that ethnic loyalties persisted longer in some contexts. During the initial leg of his five-month journey from Annapolis, Maryland, to New Hampshire in 1744, British traveler Doctor Alexander Hamilton recorded his impressions of New York and Connecticut colonists. Hamilton noted that these New Yorkers "could all talk Dutch" and "all but Mr. M\_S seemed to prefer it to English." Yet, farther upriver at Albany, Hamilton conversely observed that, "there have been a great number of Dutch here, tho' now their language and customs begin pretty much to wear out, and would very soon die out if not for a parcel of dutch [sic] Dominies here, who, in the Education of their children Endeavor to preserve the dutch customs as much as possible" (Hamilton 1907[1744]:64–65 and 107).

By the early decades of the eighteenth century, New York City merchants were selling predominantly English-language religious texts. Between 1733 and 1739, printer-retailer William Bradford continually placed advertisements for "newly imported . . . Bibles large and small, Testaments, Common-Prayer Books . . ." and "also several small histories." (*The New-York Gazette*, 26 November to 3 December 1733, no. 423; 6 November to 13 November 1738, no. 679; 14 May to 21 May 1739, no. 706). Yet the innumerable examples of Dutch Bibles, psalm books, testaments, didactic materials such as Dutch "A, B, C" or alphabet books, and even popular works of fiction itemized in contemporary household inventories and merchants' ledgers attest that goods and language retained their place in the domestic sphere at mid-century. The Schenectady accounts of merchant Robert Sanders (1705–1765) mention many Dutch books. These include the 30–31 January 1737–1738 entries for "Mr Isaac Truax – to 1 Psalter at 2/6", "Mr Nicolas Groot – to 1 dutch *Schat Kamer* ("Treasury") and 1 English Psalter – at £ 0. 2 and £ 0.7.6," and "Mr Johan van der Wercke – to 1 Dutch Book Genl/ *het havermanetje* (the Little Oatman) at £ 1.6," as well as entries of 6 July 1739 for, "Mr. Johan Keyser – to 1 high Dutch ABC Book – 9/," and 31 July 1739 for, "Mr Jacob Jansz Vroman – 1 Dutch School Book 1/6" (Sanders 1735–1741).

Sanders's New York City invoice books contain several shipments of high-end Dutch-language religious volumes. Invoice 69, dated 7 September 1748, records

the shipment from Amsterdam of "Nederduyts Testament en Psalm Boeckjes in Sp(aanse)leer (or, embossed, gilt leather) @18 and Hoogduyts, ditto @ 30" (Sanders et al. 1737–1749: Invoice 25, Amsterdam 6 August 1740, and Invoice 69, Amsterdam 7 September 1748). It should be noted in this context, *Nederduyts* referred to Dutch, or a close dialect, whereas *Hoogduyts* meant more the formal, "high German" (Charles T. Gehring, personal communication January 2008). Like religious texts, Bible tiles in the home signal piety and adherence to tradition. The trade in tiles, however, was part of the larger economic and communal order.

## PLACING ORDERS

Colonial merchants corresponded with English and/or Dutch agents who placed tile orders directly with Dutch factories. Tiles were grouped "per foot," a four-tile unit idiosyncratic to the tile industry. The following excerpt from a 1696 factory inventory, although that of an Englishman, Mr. Bateman, is still useful for pricing in the late seventeenth to early eighteenth century:

Fine painted Tyles and white Tyles		
Large, the Foot being 4 Tyles	at 16d	pr Foot
Fine painted small	7d	do
Ditto – a 2 sort of painted	4d	do
Ditto – y worst painted	4d	do
Large. Fine white Tyles	8d	do
Ditto – small. The best	4d	do
Ditto – ordinary white	2d	do

[Ray 1973:36–37]

Surviving documents from the period 1700–1760 that record the specific details of New York merchants' Dutch tile orders are rare. The actual center of production and manufacturer are seldom, if ever, named. The Albany archaeological record, however, indicates that the bulk of the *met text* Bible tiles were coming from Utrecht. Non-text examples are represented by Utrecht *op land*, Amsterdam *met boom*, and Frisian *basterde histories and histories met wolken* types in about equal number.

We know from Dutch newspaper advertisements that Utrecht tile manufacturers promoted a wide range of stock items and regularly executed special commissions. In 1754, two years after Utrecht tile maker François Kuvel (alternately Cuvel) established his new workshop on the Oudegracht near the Geerte bridge, he advertised in *Utrechtse Courant* that he would fire all kinds of tiles, which, "in the purity of their white would not even come second to those of the famous tile-maker Isaak van Oort." Kuvel added that he would also "fire unusually attractive flamed, marbleized and otherwise

decorated tiles," "painted, coarsely or delicately, with attractive designs or according to the particular wishes outlined to him." In 1773, Kuvel was still boasting a monopoly on the finest glazed and painted tiles (Hudig 1926–1933:2, 92).

A very interesting Utrecht *Modelboek*, or design book, was on the Dutch antiquarian market in June 2007. The dealers, Forum Hes, cited evidence that strongly suggests this manuscript came from the Utrecht factory on the Oudegracht, Achter 't Weystraat, which had been managed by Adriaan van Oort and various successors, including François Kuvel from 1754 to 1789, as referenced above. The model book dates to ca. 1840. Its templates were possibly executed by Pieter Van Kasteel (1795–1865), and notably, nearly all represent tile types that were in production from the early eighteenth century onward. Corner motifs include the spiderhead, carnation, and the traditional Utrecht dotted stem oxhead. Designs are indicated for painting in manganese purple, as well as in cobalt blue. Landscapes, sailing ships, occupations, children's games, sea creatures and Bible histories are all listed as the central scenes, and the latter compositions are probably after Schut. Unfortunately, the Web link is no longer accessible and the model book now appears to be in private hands and unavailable for examination (Forum Hes 2007).

Eighteenth-century factory books in Dutch archives can give us some idea of output and export sales. *Ovenboeken* at the Tichelhaar factory in Makkum, Friesland, reveal that during the period 1761–1768, Bible tiles represented 12.8 percent of the factory's overall production. It is estimated that from 1719 to 1794, approximately two million Bible tiles were produced, and that represents the output of only one factory in one Dutch center. In 1794, the best quality tiles with text sold for f. 3.25 s. (3 guilders 25 stivers), per 100, while the cheaper *basterde histories* type sold for f.1.0. per 100 (Pluis 1994:17–53). Although an Old or New Testament set could be made up of anywhere from 25 to 100 individual designs, Bible tiles were generally sold in lots of 100. They were also grouped "per foot."

## SHIPMENTS

Cases of tiles arrived on Dutch ships, or via English ships that had taken on Dutch cargo from Amsterdam. The Bellwood Library at Historic Hudson Valley's Philipsburg Manor houses transcriptions of the Philipse family's shipping records. There appear to be no tile shipments recorded after about 1700, but in the earlier documents some distinction was made between terra cotta pantiles and painted tin-glazed tiles. In 1680,

Philipse's ship the *Charles* loaded in Amsterdam in the Dutch Republic, but stopped at Plymouth, England, to pay duties and take on additional goods. The cargo list is extensive and primarily includes products meant for the domestic sphere, some Dutch books and "10,000 pantiles" and "3 cases galley tiles" that were likely to have been produced in the Netherlands (Historic Hudson Valley 1974:1, 3–4). On 30 September 1687, the *Charles* arrived in New York City loaded with cargo that included "a pcell painted Earthen Ware v. att 7:10:09," "a pcell Course [sic] Earthen Ware" valued at 10 pounds, as well as "385 foote Gally Tyles" (Judd 1977: Transcript of Public Records Office 594 MFE 190/834–839).<sup>7</sup> The object quantities within the individual parcels are not known, so the relative value between parcels cannot be determined.

By the time the tile shipments got to New York City and into Albany shops, the colonial merchants had significantly marked up the price, and very probably broke up larger series to accommodate the needs of a given customer.

## MARKETING STRATEGIES IN NEW YORK—COLONIAL NEWSPAPER ADVERTISEMENTS

In Boston, advertisements appearing in the 6 and 13 February 1738 issues of *The Boston Gazette* state a Captain Stephen Richards sold, "all sorts of Dutch Tyles, viz, Scripture (round and square), Landships of divers sorts, Sea Monsters, Horsemen, Soldiers, Diamonds, &c." (Dow 1927:85). Many eighteenth-century New York retailers, such as Robert Crommelin at Canon's Wharf, placed advertisements for Dutch tile. In 1748, he was selling "a parcel of handsome Scripture Tiles with the Chapter, and some plain white ditto." Again in 1752, Crommelin advertised "plain white and scripture Galley Tiles" (*The New-York Gazette, Revived in the Weekly Post-Boy*, 19 December 1748, no. 309 and 4 April 1752, no. 481, respectively).<sup>8</sup> In his advertisement of 17 December 1772 appearing in the *New York Mercury*, Merchant Andrew Marschalk on Cannon's Dock touted, "A Few very neat Scripture and Landskip Chimney Tiles" (Gottesman 1938:90).

Just as in shipping invoices, contemporary English-language newspaper advertisements generally use the term "galley tile" or "chimney tile" to refer to painted tin-glazed earthenware tiles, whereas the term "hearth stone" is usually reserved for actual stone, or undecorated lead-glazed earthenware tile. New York merchant Edward Hicks's *New-York Gazette* advertisements of 24 March to 31 March 1735 distinguished between "Tomb Stones, Head Stones, Hearth-Stones, Step-Stones . . .

(and) Paving-Stones." It is fairly clear that he sold stone products, and mainly floor treatments (*The New-York Gazette*: 24 March to 31 March 1735, no. 492). Evidencing the persistence of Dutch culture and language, the items in colonial New York City and Albany area account and letter books are written in Dutch just as frequently as they are in English. Here you will find variations on *steenjes* and *haard stenen* (literally "little stones" and "hearth stones"); these are the contemporary Dutch terms for tin-glazed earthenware fireplace tiles.

## SANDERS'S HART TYLES

In the manuscript collection at Historic Cherry Hill, Albany, New York, the 1749–1754 account book of Robert Sanders (Sanders 1749–1754) contains eight references to the sale of "hart Tyles" at Albany, the first entry appearing 30 September 1749, and the last 13 November 1751. Philip Schuyler and John Lansing were among Sanders's tile customers. Although three Johannes Lansings were listed on the census of Albany householders taken in 1756, this John Lansing is most likely to be Johannes Jacobse Lansing (1715–1808), the son of Jacob Gerritse Lansing (1681–1767) (Bielinski 2008). Mid-eighteenth-century blue Utrecht Bible tiles were recovered from the debris associated with the latter's property, the Lansing/Pemberton house. Sanders's accounts also establish that Benjamin Winne and a "Daniel Winne Peterson" (i.e. Daniel Pieter Winne II) did business with him between 1749 and 1754, trading in wheat, flour, blue cloth, and log chains. There are no entries for the sale of tiles to either Winne (Sanders 1749–1754, entries 9 October 1751 and 7 December 1752). Tile orders are entered alongside sales of small quantities of tea, sugar, lime juice, and manufactured goods such as fine fabrics, ivory combs, and teapots, suggesting that Sanders was more likely to have vended painted decorative tiles than utilitarian ones. Albany's archaeological record, rich with mid-eighteenth-century Utrecht and Frisian production, combined with the following documentary evidence, proves he was selling fireplace tiles.

Sanders sold his tiles in quantities ranging between 12 tiles and 136 tiles. They were valued between "6 (pence) per" and "4 ¾ (pence) per." For example, in 1749, "12 hart Tyles" were priced at six pence per tile, totaling "£ - 5" (five shillings). The unit price is calculated per tile, as worked out in an entry of 8 October 1749 (Figure 7.16). The entry reads, "Fathr Peter Schuyler . . . To 70 hart Tyles @ 5d per . . . £1 9/2 . . . Debit." This can be calculated as 70 tiles × 5 pence = 350 pence = 29.1666 shilling = £ 1 9s 2d (the remaining .1666 is rounded up to 2 pence). This also shows

8 Oct	Mr. Peter Schuyler	70 stoen blauw	per tile 6	9/2
		so 50 haart Tyle	@ 6	9/2
		1 Coffer hat at 10/-		10/-
20/10	Mr. Jacob Martel			9/-
		24 Do 20/10 Albany Barnouw Cash 6/4 Under £ 5 10/-		6

**Figure 7.16.** Entry of 8 October 1749 for "Fathr Peter Schuyler" (detail) from Robert Sanders' Account Book 1749–1754 (Historic Cherry Hill Manuscript Collection, no. 14764). Courtesy of the Historic Cherry Hill Collections, Albany, New York.

that Sanders was giving "family discounts." In 1749, while he was charging "6 per" to everyone else, Sanders charged five pence per tile to his brother-in-law Captain Philip Schuyler and father-in-law Peter Schuyler. One can even see where Sanders inked over his original figures. In 1751 the price per tile dropped. Quantities of 136 and 52 'hearth Tyles' were sold at 4% to William and Weynart Van den Berg, respectively (Sanders 1749–1754, entries for 13 November 1751).

The New-York Historical Society holds relatable account, invoice, and letter books of the Sanders family for Robert, his brother John (1714–1782), and father Barent Sanders (1668–1757) that contain tile orders (John and Robert Sanders Papers, BV Sanders, Boxes 1 and 3; Invoice Book of Barent, Robert, and John Sanders 1737–1749; Robert Sanders, Daybook 1735–1741; Robert Sanders Invoice Book 1748–1756, Misc. Microfilms Reel 23; and Letterbooks of Robert and John Sanders 1742–43, 1752–1758, and 1749–1773, Misc. Microfilms Box No. 3). Written in various hands, spelling, language preference, and terminology vary from entry to entry. The Albany invoice book of Barent, Robert and John Sanders records the voyage of the *Elizabeth*, bound from Amsterdam and unloaded in New York City on 10 October 1739. The cargo included the aforementioned testaments and psalm books, as well as, "*Een Kisye haart Stientjes . . . 500 steentjes blauw – histor met texten @ 6.5;*" or "one small case hearth tiles, 500 blue and white tiles with histories with texts at 6.5" (Sanders et al. 1737–1749, author's translation). Ten years later, in Sanders' Invoice 77, written from London 26 July 1749, the *Hawk* shipped "*Twee Kasjes . . . met 500 same 1000 haardsteenjes met historien & texten @ 6.5 pr 100*", or "two cases . . . with 500 same 1000 tiles with histories and texts" (Sanders et al. 1737–1749, author's translation).

Sanders's written correspondence with his Amsterdam agents Jan and Willem van der Grift can be correlated. His letter 1 November 1752, written from Albany to the Messrs. van der Grift in Amsterdam, includes a "Memorandum want goet ik verzoek om Direct

*op Nieuw York te Senden, Viz. . . 1000 Blauwe hert Stentjes met texten*" or, "some goods I ask you to send directly to New York, Viz. . . 1000 blue hearth tiles with texts" (Sanders 1752–1758, author's translation).

The above references to histories and texts prove that Sanders was purchasing Dutch Bible tiles through his agents in Amsterdam. These are almost certainly the same tiles he was selling to the Schuylers, the Lansings, the Van den Bergs, and other prominent Albany and Schenectady clients in 1749 and into the 1750s. Sanders was still able to obtain Dutch Bible tiles through his Amsterdam agents as late as 1761, although somewhat surreptitiously. Writing from Albany on 27 October of that year, Sanders informed the Messrs. Van der Grift that he had instructed his London agents, "Mssrs. Champion & Haley a Londre," to remit one hundred pounds to cover the cost of the following request:

Voor mijn Reckg Eenhondert pont Sterling op ontfangst.  
Gelieft my daer voor te senden de Volgende goederen en  
Verassureert da Selvel Viz: 56 Muelen Zaagen van 5  
Voeten Langh 500 hert Stentjes met Texten en twee  
herte of Vulle koopere Keetels met het Iser draad daertoe  
behoorende.

Or, "For my bill one hundred pound sterling upon receipt. Please send to me on that account the following goods and assure the same/Viz: 56 mill saws of 5 feet long 500 hearth tiles with texts and two hearth or full copper kettles with the iron thread belonging to them" (author's translation). With payment guaranteed, the Messrs. Van der Grift were to send and assure five hundred Bible tiles, along with the mill saws and two "hearth" or brass kettles with their handles. Sanders also inquired after the prices and duties owed against North American pelts:

PS Laet my eens weete met de erste Via London Die dan  
Tegenwoordige prisen van Bevers, Harte Velle &  
Peltterijen so als Maten Minke Otten Vosse & Castorium  
& ? [illeg]: tot Amsterdam en de Costuuyme sy Betalen,  
ook van Beeren Huyden groete en Klyne Sent Copia of  
above. [Sanders 1758–1765]

Or, "PS Let me know as soon as possible via London the current prices of beavers, deer skins and pelts, as well as sizes [of] minks, otters, foxes, and castor [type of low-grade or imitation beaver] & ? [illeg]: to Amsterdam and the customs duties they pay, also of bear hides large and small. Sent copy of above" (author's translation). It appears that Sanders enclosed his letter to the Van der Grifts within a separate letter that he sent to Champion and Haley. In this letter, dated 26 October 1761, Sanders instructs the London agents, "PS keep my Inclosed [sic] letter to Messrs Jn & Wm van

der Grift with you until you receive the above Bill for write only to them for Brace Kittles and Mill Saws? [illeg] for the money you shall send them out of said Bill." This elaborate arrangement was probably intended as a time-saving measure, but it is notable that the tiles were mentioned (Sanders 1758–1765).

## LATER TILE ORDERS

The invoice book of New York City merchant Evert Bancker includes orders for Dutch Bible tiles placed between 1764 and 1770.<sup>9</sup> Bible tiles with text, whether painted in manganese purple or the less expensive cobalt blue, were still more costly than "without text," landscape and shepherd types. After 1771, Bancker's orders reflect primarily British tiles shipped from Bristol. Here the painting is described as blue and "brown" landscape, shepherd, "with" or "without rings"—i.e. roundel or no roundel. There are even "Enameld" [sic] "coloured bird, basket, or flower pot" tiles, evidencing the changing taste for English polychrome tiles decorated in the rococo, chinoiserie, or neoclassical styles. Dutch Bible tiles do not appear again. Incidentally, Bancker's Amsterdam agent was Daniel Crommelin, a member of an influential New York City merchant family, and relative of Robert Crommelin, who was selling "Scripture Tiles" at Canon's Wharf.

## CONCLUSION AND AREAS FOR FUTURE RESEARCH

Dr. Alexander Hamilton observed in 1744 that the Dutch inhabitants of Albany held onto their native customs somewhat longer than their urban and urbane counterparts in the Lower Hudson and Manhattan. Robert Sanders's Albany orders for Dutch Bible tiles date as late as 1761. Presumably these were purchased locally and installed in the domestic interiors of Dutch colonists who retained the custom of their native land by lining their fireplaces and adjoining walls with tiles. An adherence to biblical imagery as a decorative aesthetic, as well as the principal means of exploring and explaining moral, ethical and social matters, attests to a more traditional and religious community at Albany.

As units within architectural installations, Dutch Bible tiles often survived *in situ* for decades until a point of removal or demolition. The resulting debris was often redistributed in street fill and waterfront landfill. In fill contexts, the date of manufacture for Dutch Bible tile fragments may not always correspond to other materials in the deposit. Such contexts cannot

indicate when and where a Bible tile was produced or purchased, only where and when it was discarded as material deemed no longer necessary or desirable to the community. Nor can fill contexts directly point to economic or ethnic parameters, distinct consumer classes, or markets for Bible tiles.

To identify the design, date, center and quality of production of surviving fragments, art historical methodologies must be employed. Concerning the interpretation of existing tiled fireplaces in historic houses, there are, however, pitfalls to relying solely on connoisseurship or art historical indicators. Bible tiles in installations with known or reported eighteenth-century histories frequently do not date to periods contemporary with their hearth's construction, and collection records for architectural restorations, which might shed light on renovation sequences, are frequently poor or nonexistent. Surviving loose examples from later low-end series, purchased for repairs or restorations and alienated from their original context, are often framed as examples of a property's original tile work. The high-end and elaborately decorated Dutch Bible tile series that fill museum collections equally distort our understanding of types available in the New York Colony.

Although the presence of many sloppily glazed or 'wretchedly scrawled' examples in the archaeological record suggests that a portion of the later colonial market was supplied with cheaper, second-class stock items, contemporary invoice books and ledger entries for *steenjes*, *hart Tyles*, and *histories* in blue or purple, with or without text, reflect some variety in price and quality, at least at mid-century. At Albany, unexpectedly large quantities of recovered Bible tile fragments are one tile type—the mid-eighteenth-century Utrecht dotted stem oxhead *met text*. An examination of surviving Utrecht model books (for designs) and factory books (for orders and shipments to the New York colony) housed in archives in the Netherlands will most likely support that this high-quality type was in demand. Further analyses of Albany-area tiles and analogous archaeological assemblages in Utrecht, the Netherlands, will strengthen attribution arguments for the Bible tile fragments found at the Winne properties and other sites.

Fewer Dutch Bible tiles survive in the archaeological records of the Lower Hudson River Valley and New York City. Although the majority of late seventeenth- and eighteenth-century New York City Bible tile fragments were recovered from landfill or demolition debris, the small quantities present attest to a degree of popularity with consumers. Surviving New York City tile orders, despite their lack of detailed descriptions or precise valuations, do specify many individuals involved in the trade of Dutch tile and other Dutch

goods, including contraband. It seems likely that even this more heterogeneous population, comprised of anglicized Dutch, the Anglo-main and others, were very willing consumers who did not reject all things Dutch overnight. Although the existing evidence suggests that New York City merchants imported Bible tiles principally with the expectation of selling them not locally, but to various Lower Hudson and "Up River" consumer bases, continued research into marketing strategies and merchants' accounts (in particular Sanders's papers), may bring to light additional Bible tile shipments, sales, purchases, and warehoused stock in New York City. Further assessment of data from Manhattan sites, and more precise identification of recovered tiles may reveal there are greater percentages of mid-eighteenth-century Utrecht Bible tiles in the archaeological record than initially supposed. New York City may have had a more subtly graded market than Albany—one that did not strictly adhere to religious piety, but still spoke to Dutch ethnic identity and residual affection for items associated with *Patria*.

In performing this study, I have relied significantly upon existing depositional information in archaeological reports and catalogues, and have realized the complexities in interpreting that data. It became apparent that archaeological, art historical, and documentary information can be complementary and contradictory at turns. It has been my hope to establish a middle ground, an exchange of sorts, in which the data gathered from all three approaches could be usefully compared and contrasted to allow for more secure identification of both intact examples and fragments housed in museums, historic house collections, and repositories, and thereby more fully understand the scope and importance of Bible tiles in eighteenth-century New York Dutch colonial society.

## ACKNOWLEDGMENTS

As no thesis is solely the work of its author, I would like to take this opportunity to thank the individuals who over many years have offered their guidance and assistance, and to express my gratitude to the numerous institutions that shared their files and in-house resources, as well as permitted access to the archaeological assemblages and manuscript collections used in this study. These are: Peter Kenny, Matthew A. Thurlow, and Elizabeth Cleland of The Metropolitan Museum of Art; Andrea Lain, Lisa M. Catalano, and all at the New York State Museum; Charles T. Gehring at the New York State Library; the late Floyd I. Brewer; Walter Wheeler of Hartgen Associates; Douglas McCombs of

the Albany Institute of History and Art; Erin Crissman and Mary Doebla at Historic Cherry Hill; Nancy Bauer and all at Philipse Manor Hall; Katherine Eagen Johnson, Althea Corey, Barbara Barbieri, and Margaret Vetroe, who helped me during my research at Historic Hudson Valley; the Cumming Ceramic Research Foundation of Ottawa, Canada; Leslie B. Grigsby of Winterthur Museum; Ron Fuchs II of Washington & Lee University; Amanda Lange of Historic Deerfield; Sandra Rux, Louise Richardson, and Bob Barth for their hospitality and for directing me to several extraordinary installations at Portsmouth, New Hampshire; Grace Hernandez; Edwin van Drecht; Jaap Jongstra of the Nationaal Keramiek Museum Het Princessehof, Leeuwarden; Marion van Aken of the Gemeentemuseum Den Haag; Margi Hofer of the New-York Historical Society; and finally, to the late Charles L. Fisher, who so enthusiastically responded to my inquiries and who kindly volunteered his insights during the early stages of research that led to this paper.

## ENDNOTES

- According to Lisa M. Catalano, Collection Technician, South Street Seaport Collection, New York State Museum, Albany, the Museum has not yet processed the Barclay's Bank/75 Wall Street materials, and has not assigned catalog numbers for these artifacts. Eventually these two tiles will be designated NYSM catalog numbers that will begin with the accession number 2005.29A. Their NYSM site number is 11646.
- As per Walter Wheeler (personal communications, November 2007 and March 2008). I am extremely grateful to Walter Wheeler for providing this citation and for sharing images of the illustrations.
- In 1958 Ivor Noel Hume inspected the entire catalogue and assigned a new and uniform series of identifying Roman letters and Arabic numerals to the storage boxes containing these materials. More important objects dating from about 1600 to about 1800 were organized as Catalogue A. From this, exhibit-worthy or significant artifacts, known as the Study Collection, were placed in 25 boxes, labeled in blue crayon, and sent to Colonial Williamsburg. The remaining materials were organized as Catalogue B. Known as the Residue Collection, these unmarked and uncatalogued artifacts were stored in wooden boxes and crates, also labeled in blue crayon with Roman letters and Arabic numerals. In 1959 the Catalogue B boxes and crates were located in the storeroom of the Admissions House. At some point the Catalogue A Study Collection materials were returned to Van Cortlandt Manor. They were placed in new cardboard boxes, re-labeled using an index based on Noel Hume's system, and relocated (Sleepy Hollow Restorations 1959a:1vii-1x). Over time, certain artifacts were removed for exhibition purposes, and storage locations were changed. Although notations were made, correlating the artifact indices and accessing these materials presents some difficulty.
- According to descendant Gerardus Beekman, in 1850 the entire house was transported from its location at 51<sup>st</sup> Street and re-erected on the opposite block between 50<sup>th</sup> and 51<sup>st</sup> Street. This suggests that

a removal and resetting could have occurred prior to the 1874 demolition (Gerardus Beekman to New-York Historical Society, letter, 27 October 1911: 2-3, New-York Historical Society, object files for 1874.8).

- Shards recovered from the grounds of the Portsmouth, New Hampshire, Warner House (site 27 RK 81) include one ca. 1730–1740 fragment of manganese purple ornamental acanthus leaf tile (27 RK 81.100), and multiple cobalt blue spiderhead fragments stylistically dateable from the first to third quarters of the eighteenth century. The cobalt designs show ornamental foliate patterns and landscape scenes. No Bible designs are present. The downstairs dining room fireplace at the Warner House (built ca. 1710–1716) was extensively renovated in 1760. In order to accommodate English red transfer-printed tiles depicting pastoral scenes, the original installation of ca. 1720 cobalt Rotterdam-type sea creature tiles was removed. Approximately 24 of the sea creature tiles were re-fit into the upstairs bedroom parlor hearth, also remodeled in 1760. This installation shows a mixture of designs and production dates, and many of tiles are cut, broken, and poorly refit. The foliate and landscape tiles present are the same types as those recovered from the grounds. Another Portsmouth property, the Wentworth-Gardner House (built 1760), has five fireplaces tiled with spiderhead landscape, animal and pastoral scenes. Although in each case the wooden mantel work dates to the late eighteenth century (roughly contemporary to the house's 1760 construction date), the installations (two in cobalt blue and three in purple manganese) include tiles that could have been produced in either the Netherlands or England, and are stylistically dateable to the early nineteenth century. Two manganese examples, in which a male figure wears a stove pipe hat and trousers, are possibly late nineteenth-century tiles. Since there are several production series within each of the tiled fireplaces, a closer examination of individual tiles is necessary to better understand the installation sequences. I am extremely grateful to Sandra Rux, Historic House Manager, Portsmouth Historical Society and Wentworth-Gardner and Tobias Lear Houses Association, and Bob Barth, Independent Archaeologist, for providing the known architectural history and archaeological data for these two Portsmouth properties.
- Robert Hunter observes that the English Navigation Acts of 1650 and 1661, which specified that all goods manufactured outside of Great Britain had to be imported to England aboard English ships, severely limited English colonists' access to foreign-made goods. After the English Conquest of 1664, legislation proposed the importation of English goods and discouraged the importation of foreign-made ceramics. A London order of council issued in 1672 further restricted the importation of foreign-made ceramics to "China, stone bottles[ and Juggs," or Chinese porcelain and Northern European stonewares (Hunter 1994:25–27). In 1673, during the Third Anglo-Dutch War (1672–1674), the Dutch briefly recaptured the city. It was not until the colony was ceded to England in 1674 that London merchants began to seek direct trade with New York (Ritchie 1976:7–29). The quantity of recovered shards evidence that despite a more rigorous English control of trade after the ascendancy over the Dutch Nieuw Nederland colony in 1664, quantities of Dutch Bible tiles were available to New Yorkers during the late seventeenth century and well into the century following.
- The in-house catalogue of the Historic Hudson Valley Library does not record a date for Judd's transcriptions. The reference is given as "Judd, Jacob 1???" Transcripts of Shipping Activities." Internal Report, Historic Hudson Valley Library, Tarrytown, New York.
- I am extremely grateful to Walter Wheeler for drawing my attention to these two advertisements.

9. Invoice 81, dated 10 August 1764, reports that the *Catherine* bound from Amsterdam unloaded in New York City. The cargo included, "7 Boxes each 500 is 3500 Tiles Purple Scripture with text @ 6.10," as well as blue "without text" and "Landscape" at five pence, and blue "Shepherds" at 3.5 pence. Bancker's Invoice 84 for the cargo of the *Briggs*, a "Bristol Packett" bound from Amsterdam and unloaded in New York City on 15 July 1765, includes the line entry for "3 boxes 500 is 1500 blue scripture tiles with text at 4 1/4" and "3 do . . . 500 is 1500 blue Skripturd [sic] tiles with text at 5." Invoice 98 of 29 September 1770, reveals that aboard the *Brig Belvedere* from Amsterdam to New York, Bancker shipped Dutch language books including, "6 folio Bibles dutch [sic]; 72 Testaments with Canticks; 12 do Largeprint [sic]" as well as boxes of undecorated white, and blue and purple tiles (Invoice Book of Evert Bancker 1764–1777, New-York Historical Society, Misc. Microfilms Reel 23).
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Chapter 8

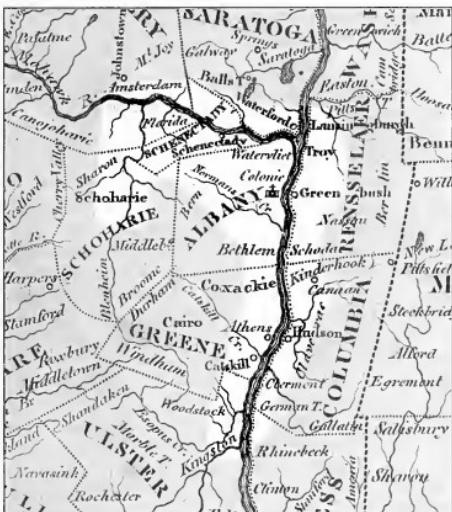
"ONCE ADORNED WITH QUAIN DUTCH TILES . . .":  
A Preliminary Analysis of Delft Tiles Found in Archaeological Contexts  
and Historical Collections in the Upper Hudson Valley

Walter Richard Wheeler

Archaeological excavations undertaken in the upper Hudson Valley region, particularly in the vicinity of Albany during the past 40 years, have yielded a number of fragments of decorative Dutch tiles of various patterns. While several of these have been published and analyzed, to date no systematic assessment of this collection has been made. This chapter presents a preliminary analysis of this body of material and supplements it with examples possessing clear provenance from local historical collections and with references from documentary resources. A comparison of this group of tiles with examples known to have been contemporaneously available in the Netherlands will add depth to an analysis of these artifacts. Tiles were neither a structural requirement in houses nor a domestic necessity, as were other ceramic types. Thus, study of this artifact type helps to illuminate the aesthetic choices and social values of the region's residents. Because the designs represented on the tiles are also signifiers, the tiles, even in a fragmented state, can be "read" and interpreted with respect to broader cultural meanings.

THE SURVEY

This chapter presents the findings from a survey of delft tile fragments curated in public and private archaeological collections developed during the past 40 years, together with tiles that have descended in private and public collections and which have retained information regarding their original installation location, or which remain in situ. The geographical scope of the survey includes Albany, Rensselaer, Columbia, Schenectady, Schoharie, Montgomery and Greene Counties (Figure 8.1). No installations are known in Saratoga or Washington Counties. Tiles from installations in Kingston, Ulster County, have been included to provide a comparison between the urban settlements of the upper Hudson Valley and those of the mid-Hudson.



**Figure 8.1.** Detail from *State of New York* (1813) by Mrs. B. C. Spafford, engraved by Peter Maverick. Highlighted area indicates the region identified by this survey in the upper Hudson and lower Mohawk valleys in which tiles are known to have been used.

Examples and comparisons to tiles recovered at other sites outside of the survey area are included when useful for context or interpretation. All examples are of Dutch manufacture unless specified otherwise. Likewise, identified centers of production are all in the Netherlands if not noted otherwise.

The survey was seen as the best approach to finding answers to several research questions. Among these are:

Specifically what types of delft tile were used in the upper Hudson Valley? During what period of time do they appear to have remained popular? Where were the tiles used in the region manufactured? What was the typical quality of the tiles shipped to the region? Did any of these characteristics change over time? Are there any differences between the tiles used in urban settings and those installed in rural locations?

For some time it has appeared to historians of the region that tiles featuring scenes from the Old or New Testament were overwhelmingly popular (Cornelius 1925:103). An additional purpose of this research has been to test this thesis.

## SURVEY METHODS

Approximately 2,700 tiles and fragments have been included in this survey. This number includes about 150 whole tiles that were removed from seventeenth- and eighteenth-century houses during the nineteenth century, and which retain credible provenance, and approximately 230 tiles that remain in situ in what are believed to be eighteenth-century installations. The balance of the tiles in the survey are chiefly fragmentary and were recovered during archaeological excavations. Most collections from individual sites are small; a notable exception is the more than 1,500 fragments that were recovered from a midden associated with the Livingston house at Clermont, burned by the British in 1777.

Each tile or fragment was scanned with a scale bar at 600 dpi in jpeg format. Every example was scanned, with the exception of those from the Clermont collection, for which a representative sample was recorded. Those tiles that remain in situ or are currently installed in architectural contexts were photographed with a digital camera at 600 dpi without a scale bar. Available information, including catalog identification, provenience data, glaze color and type, thickness (in mm), face dimensions (only for examples that preserved one or both face dimensions), subject matter, corner and border types, and presence of pin holes were recorded for each tile or fragment in a Microsoft Access database. The body color of each example was determined using the *Munsell Ceramic Color Charts* (Munsell 1998).

It has become clear as a result of this survey that various historical accidents, such as exposure to fire and deposition history, can alter perceived body color. In addition, a range of body colors can be contained within one tile or fragment. The color typically differs between the outside surfaces and the center of the body of a tile, a fact that can be less apparent in fragmentary examples. With this proviso in mind, broadly speaking body color and type are considered to be diagnostic for

period and production center. Wherever possible, the body color was assessed from an exterior surface.

Tiles and fragments were identified in public collections; a concerted effort was also made to identify private collections and installations. A general assessment of the tiles represented by each collection or installation, together with supporting documentation, is presented in the catalog portion of this paper. Several sites for which no tiles are known to survive, but the existence of which is recorded in nineteenth-century histories, are presented in order to compile in one location all known references to the use of this ceramic type in the upper Hudson Valley (Table 8.1).

## HISTORICAL CONTEXT

### The Jambless Fireplace and Transition to the "English" Type Fireplace

The primarily Dutch and Germanic settlers who arrived in the upper Hudson Valley beginning in 1609 brought with them their cultural values and building traditions. Among these was the use of what is called the "jambless fireplace" (Figure 8.2). Its chief components include a cooking surface, typically inset at floor level and comprising several rows of roughly 8-inch square tile. These tile were usually glazed—green, yellow and clear glazes were most popular in the upper Hudson Valley—but later examples of this tile, known as "heart[h] tile" were frequently left unglazed. Some examples made use of native stone for the hearth. The heat from the fire was isolated from the frame of the dwelling by setting the tile in clay or sand, which was supported by either a brick arch or wood cradle.

The second principal feature of the jambless fireplace

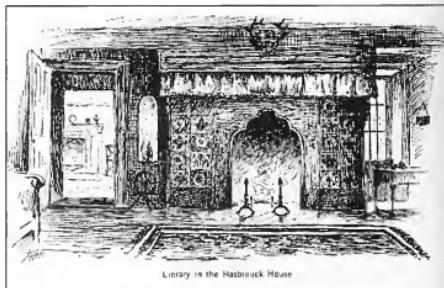


Figure 8.2. "Library in the Hasbrouck house," supposed to represent a jambless fireplace with tiles in a Kingston, New York, home (Forysth 1893:351).

**Table 8.1.** List of Sites Discussed in This Paper with Present Locations of Collections (in 2010).

County	Town	Site name	Collection location
Albany	City of Albany	John Bogert house	NYSM
Albany	City of Albany	Volkert J. Douw house	NYSM; Brustle collection
Albany	City of Albany	Hitchen Holland/ Philip Van Rensselaer house	Historic Cherry Hill
Albany	City of Albany	Jacob Lansing house	NYSM; AIHA
Albany	City of Albany	Pieter Quackenbush house	NYSM
Albany	City of Albany	Schuyler house	Hartgen Archeological Associates
Albany	City of Albany	Philip Schuyler house	NYSOPRHP
Albany	City of Albany	Philip Pieterse Schuyler house	NYSM, AIHA, SCHS
Albany	City of Albany	Stevenson house	AIHA
Albany	City of Albany	Jeremiah Van Rensselaer house	AIHA
Albany	City of Albany	Stephen Van Rensselaer house	No collection
Albany	City of Albany	102–110 State Street	Hartgen Archeological Associates
Albany	City of Albany	32 Howard Street	NYSM
Albany	City of Albany	City Wall, North Pearl Street	NYSM
Albany	City of Albany	DASNY	AIHA
Albany	City of Albany	Fort Orange	NYSOPRHP
Albany	City of Albany	James Street Fili site	Hartgen Archeological Associates
Albany	City of Albany	Lutheran Church Lot	NYSM
Albany	City of Albany	Maiden Lane site	Hartgen Archeological Associates
Albany	City of Albany	Maiden Lane Pedestrian Bridge	NYSM
Albany	City of Albany	Picotte-DEC	NYSM, Brustle collection
Albany	City of Albany	State Street blockhouse	NYSM; NYSOPRHP
Albany	City of Albany	SUCF site	NYSM; Brustle collection
Albany	Town of Bethlehem	Rensselaer Nicoll house	BAL; private collection
Albany	Town of Bethlehem	Daniel Pieter Winne house	Metropolitan Museum of Art
Albany	Town of Bethlehem	Pieter Winne house	BAL; private collection
Albany	Town of Coeymans	Ariaantje Coysmans house	Private collection
Albany	City of Cohoes	Wessel Van Schaick house	Hartgen Archeological Associates
Albany	Town of Colonie	Arent Van Curler house and Philip Pieterse Schuyler house	NYSOPRHP; Brustle collection
Albany	Town of Guilderland	Freeman house	Private collection
Columbia	Town of Claverack	John Bay house	No collection
Columbia	Town of Claverack	Jacob Rutsen Van Rensselaer house	Private collection
Columbia	Town of Clermont	Livingston house	NYSOPRHP
Columbia	Town of Kinderhook	Van Alen house	CCHS
Columbia	Town of Kinderhook	David Van Schaack house	Private collection
Columbia	Town of Kinderhook	Wendover house	No collection
Columbia	Town of Livingston	Dirck Wesselse Ten Broeck house	No collection
Greene	Town of Catskill	Dies house	No collection
Greene	Town of Coxsackie	Peter Van Bergen house	GCHS
Greene	Town of Coxsackie (West Coxsackie)	Peter Van Bergen house	No collection
Greene	Town of Leeds	Francis Salisbury house	No collection
Greene	Town of Leeds	Garret Van Bergen-Arent Vedder house	Unknown

continued on next page

**Table 8.1.** List of Sites Discussed in This Paper with Present Locations of Collections (in 2010). *continued*

County	Town	Site name	Collection location
Montgomery	Town of Amsterdam	William Johnson house	NYSOPRHP
Montgomery	Town of Florida	Enders house	NYSOPRHP
Rensselaer	Town of Brunswick	Maj. Flores Bancker house	No collection
Rensselaer	Town of East Greenbush	Douw house	NYSOPRHP
Rensselaer	Town of North Greenbush	David DeFreest house	Unknown
Rensselaer	Town of North Greenbush	Van den Burgh house	Hartgen Archeological Associates
Rensselaer	City of Rensselaer	Hendrick Cuyler house	No collection
Rensselaer	City of Rensselaer	Hendrick Van Rensselaer house	NYSOPRHP; Crailo State Historic Site
Rensselaer	Town of Schodack	Daniel Schermerhorn house	NYSOPRHP
Rensselaer	Town of Schaghticoke	Knickerbocker house	No collection
Schenectady	Town of Niskayuna	Timersen house	Brustle collection
Schenectady	City of Schenectady	Swits house	SCHS
Schenectady	City of Schenectady	Abraham Yates house	SCCC
Schenectady	Town of Scotia	Glen-Sanders house	Private collection
Schoharie	Village of Schoharie	John Bouck house	Schoharie County Historical Society; private collection
Ulster	City of Kingston	Matthewis Persen house	Ulster County Records Center
Ulster	City of Kingston	Wessel Wesselse	NYSOPRHP
		Ten Broeck house	

was a rectangular-in-plan conical brick flue. This rested on a rectangular frame composed of portions of two adjacent anchorbeams, which also served as the ceiling joists, and connecting structural members called trimmers. Unlike "English" type fireplaces, which had enclosed fire boxes and jambs (side walls) of brick that helped support the chimney above, the flue of the jambless fireplace was supported within the dwelling by this wood frame.

Between the bottom of the flue and the surface of the hearth the vertical surface of the wall serving as the back of the fireplace was typically constructed of brick or stone and covered with plaster. Not infrequently a cast iron fireback was placed near the center at the base of this wall surface for added protection against the intense heat. The left and right edges of the plastered wall surface were the traditional site of tile installations, and the likely manner in which most of the tiles in this survey originally were used (Stevens 2005:92–95). Some notable exceptions will be discussed in this paper.

Jambless fireplaces were favored by residents in the vicinity of Albany well into the eighteenth century. The last of this type appear to have been constructed in the late 1760s and early 1770s, with the Conyn house in Claverack, Columbia County (1766), and the David DeFreest house in DeFreestville, Rensselaer County (1771), having been constructed with both English and jambless types of fireplaces. Examples of outbuildings with jambless fireplaces are known in Ulster County

and may date to as late as the early nineteenth century. The longevity of this preference for the jambless fireplace may be closely related to regional foodways as well as tradition; cooking methods utilized in kitchens equipped with jambless fireplaces differed substantially from those used in kitchens with English-type fireplaces.

The use of delft tile as facings for the area around the firebox in English-type fireplaces grew in popularity in both England and its colonies during the course of the eighteenth century. Illustrations of installations from this period and archaeological evidence indicate that this was equally true in the upper Hudson Valley as the English-type fireplace saw increasing use (Figure 8.3). Tile fragments from several sites in downtown Albany contexts retained edges tooled to a 45-degree angle, presumably to fit the contours of the cheeked firebox design popular in that era.

By the 1730s marble facings were favored for fireplace surrounds in the larger cities of the colonies, although only the wealthiest of families could afford them (*Pennsylvania Gazette* 1739; *Boston Gazette* 1739). They remained uncommon, even in New York City, before the Revolution (Watson 1832:162). The use of tile in English-type fireplaces was seen as a viable alternative for those who could not afford to acquire marble chimney pieces and facings.

Marble chimney facings came into use by the 1760s in the Albany region, but, similar to the situation in New York, their use was by no means universal before the



**Figure 8.3.** Tile installation in the southeast chamber of the David Van Schaack house, Kinderhook, New York.  
Photo by the author. Courtesy of Audrey and Stuart Peckner.

Revolution even among the region's elite families. Although the Schuyler house in Albany (1762) made use of marble hearths and facings in its principal rooms, tiles decorated some of the fireplaces in other spaces (Division for Historic Preservation 1977:25). The Cuyler house in Rensselaer (ca. 1767) appears to have incorporated tiles into each of its fireplace surrounds. The Van Schaack house in Kinderhook (1774) seems to have made use of tile only in its second-floor rooms.

The Revolutionary War disrupted international commerce during the 1770s and early 1780s, and the once-thriving trade in tiles appears to have significantly diminished after that period. The increasing exploitation of American sources of marble after the Revolution resulted in a more extensive use of cut stone for chimney dressings. Marbles from Stockbridge, Massachusetts, and Rutland, Vermont, and clouded marbles from the Philadelphia area were all made available to local consumers. Brownstone from quarries in Connecticut and Nyack, New York, offered popular, and slightly less expensive, alternatives. Availability increased and prices decreased for this commodity during the final decades of the eighteenth century, effectively putting an end to the use of tin-glazed tiles. It can be presumed that a number of tile installations were removed during this time and replaced with marble or brownstone facings in response to increased availability of these materials. Many mid-century fireplaces had their fireboxes converted to the more efficient "Rumford type" form in the late eighteenth century, resulting in the removal of many of the eighteenth-century tile installations in the region. And finally, the number of households that made use of cast iron stoves

increased beginning in the 1780s, resulting in the decline of the stature of the mantelpiece as a site for decorative expression.

The last known installations of tile in the region date to ca. 1800. By the end of the eighteenth century, those American advertisements that mention tile were typically notices for auctions and liquidations of old stock (*Daily Advertiser* 1797; *City Gazette* 1800; *Boston Evening Post* 1810; *Commercial Advertiser* 1817). Installations that date to the end of the eighteenth century thus likely took advantage of the cheaply available tile. No inventories for private homes or shops in Albany County for the period 1787–1800 indicate the presence of tile in storage or sale areas, suggesting a declining local supply (Nagle 1979).

### Vendors of Wall Tile

Newspapers came late to the upper Hudson Valley—the earliest being published in Albany in 1771—and so it is not surprising that few, if any, advertisements for the sale of wall tile were printed in that city. It is known, however, that local merchants including Robert Sanders were procuring and selling tiles to Albany's families, including the Schuylers and Livingstons (Sanders 1742; Sanders 1749). Close family ties make it likely that he was the source for the tiles used in the Glen-Sanders mansion in Scotia as well.

Vendors in America's larger cities advertised the sale of tile of several types. In Boston, John Philips sold "Blue and white Dutch Tile for Chimneys, handsomely figure'd" in 1744 (*Boston Evening Post* 1744). Samuel Fletcher offered "Chimney Tyle" among the many fine earthenwares that he sold in the early 1760s, apparently selling them by the box (*Boston Post Boy* 1761; *Boston News-Letter* 1763). His contemporary, William Greenleaf, imported chimney tiles from London, noting the availability of "red & white, and blue & white English Chimney Tile" to his customers (*Boston Evening Post* 1762; *Boston News-Letter* 1768a). Jackson's Variety Store offered "blue and white Chimney Tile" (*Boston Evening Post* 1774).

In New York, Robert Crommelin advertised "a parcel of handsome Scripture Tiles with the Chapter, and some plain white ditto [tiles]" for sale in 1748 (*New-York Gazette* 1748). Four years later, he offered "plain white and Scripture Galley Tiles, [and] green and yellow Heart Tiles" (*New-York Gazette* 1752). In 1764, Andrew Marschalk offered "a few very neat Scripture and Landskip Chimney Tiles" for sale, indicating that he also had "Boston [tiles], for Oven Floors, and Hearths" (*New-York Mercury* 1764). At Samuel Verplanck's shop in Wall Street one could purchase "chimney tiles, red and blue hearth tile" and "Holland backs," meaning

cast iron firebacks (*New-York Mercury* 1766). Isaac Conaro offered "Hearth Tile . . . Flat Tile, Chimney Tile, [and] Marble Chimney-pieces of the newest Taste, from Holland, and Chimney Backs," thus providing a full line of fireplace trimmings to prospective customers (*New-York Gazette* 1766). In 1773, Christopher Smith imported from Amsterdam "Purple scripture chimney tiles without texts" (*New-York Gazette* 1773). Tiles were sometimes sold by the "set" as opposed to the box. John Morel in Savannah offered "Two or Three Sets of Dutch Tile" for sale in 1770 (*Georgia Gazette* 1770).

The wording of some early advertisements, such as that by Alexander Woodrop in Philadelphia who offered "Chimney Tyle" for sale, makes it unclear whether or not these were tin-glazed tile, or if hearth tile were being offered (*American Weekly Mercury* 1733). Indeed, the terms may have been used interchangeably in the seventeenth and early eighteenth centuries.

Sixty-six "hearth" tiles were ordered by the Deacon of the Dutch Reformed Church in Albany in 1659; they were likely intended for the parsonage. The total cost was 29.14 florins, or 9 stivers, each (Venema 1998:62). It remains unclear whether these were tin-glazed wall tiles or hearth tiles, but the former seems likely as hearth tiles were being locally made at that time.

The inventory of Gertruy Van Cortlandt's house in New York, taken in June 1724, recorded "1 box qt 220 hearth tiles" as stored in "the room over the kitchen" (Piwonka 1987:76). Given that hearth tile typically measured between 17.8 cm (7 in) and 22.9 cm (9 in) square and were usually approximately 5.1 cm (2 in) in thickness, it is likely that tin-glazed chimney or wall tile were meant. The habitual conflation of terminology makes it difficult to state with any certainty which of the two types of tile associated with chimneys or fireplaces was being referred to in eighteenth-century sources.

Advertisements placed late in the eighteenth century, quoted above, use the terms "Boston tiles" and "Heart tiles" to clearly indicate that hearth tiles, qualified as "flooring or hearth tiles" in a later advertisement, were being sold (*City Gazette* 1790). In this context, the nature of the "28 hart tyles" purchased from Robert Sanders by silversmith Jacob J. Lansing in 1755 for 5 d each, and the "85 hart tyles" purchased from Sanders by Philip Reily in 1758 for 5½ d each remains unclear (Sanders 1754:101, 436). Although Sanders traded in building materials such as lumber and hardware, brick and other masonry appears to have been outside of the scope of his business, which was largely centered on more refined consumer items such as fine fabrics, pre-made clothing items, spices, and liquors. This would suggest that he retailed delft tile instead of actual hearth tile.

Advertisements appearing in American newspapers after the Revolution are somewhat clearer on this point,

due to the addition of descriptive detail. Many also record that the tile was coming principally from the Netherlands at that time. Florian Charles Mey of Charlestown offered "Blue and white, purple and white, and white chimney tiles," "White and coloured chimney Tiles," and "Red hearth tiles" shipped from Amsterdam, among the other refined goods in his store (*State Gazette* 1785; *City Gazette* 1796). Brothers, Coster & Co. of New York offered "Holland tiles" among their international imports (*Daily Advertiser* 1786). No references to English-made tiles being offered for sale in American cities after the Revolution were identified during research for this paper.

### Installation Types

The principal use of tin-glazed tiles in the upper Hudson Valley was for the ornamentation of fireplaces. A number of travelers and authors recorded this use of tiles. Chief among them was Washington Irving, who painted the following picture:

The fireplaces were of a truly patriarchal magnitude, where the whole family, old and young, master and servant, black and white, nay, even the very cat and dog, enjoyed a community of privilege, and had each a right to a corner . . . the gentlemen . . . each . . . tranquilly smoked his pipe, and seemed lost in contemplation of the blue and white tiles with which the fireplaces were decorated; wherein sundry passages of scripture were piously portrayed . . . [Barber 1851:160–161; the source is *Knickerbocker's History of New York*]

In the Albany region, a particular variation on the jambless type of fireplace was recorded by two mid-eighteenth-century visitors. Samuel Chandler noted in 1755 that "[t]he Dutch Chimneys have very small Jambs with 3 or 4 rows of Tile, Some no Jambs at all . . ." (Munsell 1867:374). Similarly, Peter Kalm observed in 1749–1750 that "[i]n Albany the fireplaces had small sides projecting out about six inches made of Dutch tiles with a white background and blue figures . . . No tile stoves were used there . . ." (Kalm 1964:613). No examples of this type of fireplace are known to remain in the region.

Although the majority of tiles appear to have been installed as ornaments to fireplaces of either the jambless or jamb'd type, other forms of installations are recorded or can be inferred from the archaeological record. In 1704, Sarah Kemble Knight described an installation in a New York home as typical: "the stair cases [are] laid all with white tile which is ever clean, and so are the walls of the Kitchen w<sup>ch</sup> had a Brick floor" (Knight 1920:53). Several years earlier, in June

1697, Benjamin Bullivant observed that New York houses made use of "Dutch tiles on each side [of] the fire place, carried up very High [...] They also tyle their sides of y<sup>e</sup> staircase, and bottom of windows . . ." (Andrews 1956:65). White tiles were used in the Van Cortlandt manor house and at Clermont, the Livingston manor house (Earle 1915:125). The large number of tile fragments of this type found at the site of the Livingston house is probably indicative of an installation similar to that described by Knight. Fragments of this same tile type were found in the 1970s at the site of Kipsbergen, the Kip-Beekman house in Rhinecliff, Dutchess County (Alvin Wanzer, personal communication 2010).

Only one instance of the use of tile for baseboards is known in the region, although there were probably a number of such applications. The Coeymans house in Coeymans, Albany County, retained fragments of its original baseboard tile in the hall of its second floor until ca. 1980. This type of installation was common in the Netherlands, and is recorded in a number of seventeenth-century paintings by Vermeer and other artists.

A "Russian stove" was installed in the Van Rensselaer manor house by or in 1813 (Van Rensselaer 1813). No other information survives regarding this stove, but the type usually consists of a ceiling-height masonry stove built into a corner of a room and sheathed entirely with tin-glazed tiles (Van Lemmen 1997:137–138). Van Rensselaer's interest in such a stove was probably an extension of his concern for the promotion of technology in general. The manor house was razed in 1893, and no images are known of this stove.

### Arranging for the Installation of Tile

A recent dissertation identified 42 seventeenth-century building contracts, including 24 from the Netherlands and 18 representing structures constructed in New Netherland (Van den Hurk 2006). Although several of the contracts generated in the Netherlands contain reference to the installation of tile as one of their stipulations, it is notable that none of those for structures in the colony of New Netherland have similar requirements (Van den Hurk 2006:381–451). Similarly, no known contracts drawn for the construction of buildings in New York colony (1664–1776) make reference to tiles. It appears that merchants served as the chief source for this material, rather than builders. On occasion, merchants who required tiles for personal use availed themselves of business contacts in Europe in order to procure tiles at a reasonable cost. Such was the case when Leonard Gansevoort of Albany ordered tile directly from a merchant in the Netherlands (Gansevoort ca. 1770).

The use of tiles was widespread in the North American colonies, particularly in the vicinities of their

principal distribution points, New York and Boston. In contrast to practice in New York, some Boston-area mason's contracts of the late seventeenth and early eighteenth century include specifications regarding the installation of tile (Cummings 1979:202, 217–218). The origin of this regional variation in construction practice is unknown.

### Installing the Tile

From the examples examined for this survey, it appears that tiles were typically set in beds of lime-rich mortar ranging between 9 and 10 mm in thickness. Two examples in the collections at the New York State Museum preserve what appears to have been the full thickness of their original mortar backings. An example from the SUCF collection (A-A.2002.20.312.19.3) retained mortar measuring 9.65 mm in thickness. On a second example, from the City Wall Collection, excavated on North Pearl Street in Albany (A-A.2000.40c.126.052), the mortar bed measured 9.54 mm in thickness. The thickness of mortar on these two examples was almost identical, despite the fact that the two tiles were of different thicknesses themselves; the first example was 6.6 mm thick, while the second was 8.72 mm in thickness.

At least one contemporary observed that the standard method of attachment was insufficient and offered a remedy. Henry Christian Geyer of Boston noted that "he has frequently observed that the practice of this Country in setting English and Dutch Tile in common stone Lime is not durable and strong Work; wherefore said Geyer has prepared a better and stronger Material to set them in, which he will warrant to be as strong as any in Europe . . ." (*Boston News-Letter* 1768b). The nature of the material he offered as an alternative is not known, but it clearly did not receive wide application; all of the eighteenth-century tiles that were examined for this survey and that retained traces of mortar had lime-rich mortar with either a sand or clay and sand base mix.

### Late Nineteenth- and Early Twentieth-Century Installations

A constellation of international aesthetic movements came together to generate a "Holland Mania" in the late nineteenth century (Stott 1998:11). Among these was the establishment of the aesthetic "reform" movement in England, which promoted the use of materials in their natural state, and an emphasis on the use of color. This movement was founded by Charles Eastlake in the 1860s; by the early 1870s it became influential in the United States. The Howes house at 1833 5th Avenue (ca. 1873) and the house at 62 Second Street (installation ca. 1880), both in Troy, were fitted with Eastlake-inspired



Figure 8.4. Installation dating to ca. 1873 at 1833 5th Avenue, Troy, New York.  
Photo by the author.

interiors and utilized scriptural tiles in their principal fireplace surrounds (Figure 8.4). Installations of this type are not antiquarian in nature, as they make no attempt to deceive the viewer into believing that they date to the seventeenth or eighteenth century, but they do frequently make use of tiles that were antique when installed.

The national centennial of 1876 raised regional awareness of local history, and inspired a series of historical loan exhibitions that continued intermittently from that date until after the turn of the century. The largest were timed to coincide with Dutch-American anniversaries, including the bicentennial of the charter of Albany (1886) and the tercentennial Hudson-Fulton Celebration (1909). These exhibitions were menageries composed of artifacts and antiques from public and private collections, and typically included a number of architectural artifacts, including delft tiles.

Tiles exhibited at the Bicentennial Loan Exhibition in Albany included the "old tile" loaned by Mrs. A. Cuyler Ten Eyck, and a "Dutch tile." (*Bicentennial Loan*

*Exhibition 1886:138–139*). The numerous "Delft ware" plaques lent by several individuals may have included framed single tiles. One was described as a "Bird cage plaque." (*Bicentennial Loan Exhibition 1886:42*). A "Dutch tile from Holland 200 years ago" was loaned by Mrs. Volkert P. Douw. (*Bicentennial Loan Exhibition 1886:137*).

The elevated status of these objects in the late nineteenth and early twentieth century is evidenced in historical essays of the period and resulted in a series of re-installations of antique tiles in older houses. In support of this approach, the *Albany Journal* opined that tiles "have sufficient virtue to entitle them to preservation by the historical [sic] loving people" (*Albany Journal* ca. 1888). Among the many homes in which seventeenth- and eighteenth-century tile were installed in what were considered to be historically accurate contexts at that time were Cherry Hill (ca. 1896) and the Abraham Ten Broeck house (ca. 1947), both in Albany. The Ten Broeck house, constructed in 1797, probably did not incorporate tile into its original fireplace designs.

At the same time, revivalist architects began to incorporate new and old tiles into the designs of their residential interiors. Examples include the Jackson house at 32 Washington Avenue (1895) and the Governor Yates house at 17 Front Street (remodeled ca. 1889), both in Schenectady, and the Rice house (now part of the Albany Institute of History and Art), in Albany (1895).

Expanded research into the colonial history of the region coupled with the tricentennial celebration of Albany's charter in 1986 has resulted in a resurgence of interest in the Dutch colonial period that continues to the present. As a direct result, a number of the region's early houses have been or are being restored. These restorations frequently include the installation of tiles; examples include the Brouwer house at 14 North Church Street and 121 Front Street, both in Schenectady, and the Pieter Winne house in Bethlehem.

## CATALOG

The following catalog presents a brief description of each site identified in this survey. The catalog is organized alphabetically by county; sites are presented alphabetically by town or city within each county, with identified family sites presented first followed by larger archaeological contexts. Locations given indicate present-day corporate boundaries. Historical descriptions are included when they pertain to a specific installation; in some cases this is the only information available for a particular site. The types of tile represented by the tiles or fragments are discussed, and tentative identifications of the date ranges and production centers are offered.



**Figure 8.5.** Example of tile from the John Bogert house, Albany, New York (NYSM A-A2003.23.266.118a). Courtesy New York State Museum, Albany, NY.

## Albany County, City of Albany

### *John Bogert house, 611–613 Broadway*

John Bogert's house was one of 216 buildings burned in the great fire of 1797 (*Albany Centinel* 1797). The remains of the foundation of Bogert's house, and one large tile fragment (A-A2003.23.266.118a) depicting a landscape scene in blue and white set in a roundel and with "spider" corners, were identified during the course of archaeological work in 1997 (HAA 2002b:5.21) (Figure 8.5). An additional five tile fragments were recovered from the area underneath Bogert's house, and were possibly associated with the occupation of the site by Abraham Van Vechten earlier in the century (HAA 2002b:5.29). These tiles are described in the entry for the Picotte-DEC site.

### *Volkert Jansen Douw house*

(*later remodeled as the Albany Almshouse*)

The Albany Almshouse was constructed in 1686, on the block bounded by Beaver Street to the south and Norton Street to the north. South Pearl Street was created to the west of the site in the late eighteenth century. The Almshouse was a renovation of an earlier dwelling, which had been occupied by the family of Volkert Jansen Douw since at least 1650 (Peria 2003:122).

A total of 20 tile fragments was recovered during emergency excavations in advance of the construction of the KeyCorp office building on South Pearl Street between Norton and Beaver streets in 1985. Six of these fragments are in a private collection; the balance is in the collection of the New York State Museum.

All but one of the 20 fragments have blue and white glaze. The single example of purple and white glazed tile depicts a scene from the Bible. Seven of the blue and white fragments appear to depict scenes from scripture as well, and to have had "ox head" corners with the subject set within a roundel. These tiles were probably made in Utrecht or Rotterdam during the period ca. 1740–1775 (Pluis 1994:539, 555). Two examples of spider corners were recovered, but these fragments do not retain central motifs and so the subject matter of the tiles they were associated with is unknown.

### *Hitchen Holland house/ Philip Van Rensselaer house, Cherry Hill*

Cherry Hill was constructed in 1787 by Isaac Packard for a branch of the Van Rensselaer family on land that had been occupied by Hitchen Holland since at least 1767 (Mendel Mesick Cohen Architects 1979:4). The reuse of mid-eighteenth-century architectural elements, which are apparently from that earlier structure, has lead to speculation that the tiles recovered in archaeological contexts and within the present house may have been taken from the earlier Holland house (HAA 1984:17, 18, 20). This is certainly a possibility, as the majority of the tiles at Cherry Hill predate the construction of the house by some time.

Excavations were undertaken at the Cherry Hill property in 1980, 1982–1984, 1986, 1990, and in 2000 (HAA 1984, 2000). All but the last two digs have resulted in artifact assemblages that have included tile fragments. A total of 58 tile fragments have been collected in this way. An additional 84 whole or partial tiles are in the Cherry Hill collection, having been either collected around the site by members of the family or staff, or having been discovered stored in the attic. Sixteen additional tiles, also said to have been found in the attic, were installed in the northeast bedroom on the second floor about 1896. Four tiles with "carnation" corners appear to have been collected as souvenirs when family members visited The Hague. A polychrome tile of unusual design in the collection (Figure 8.6) may have been purchased as a souvenir as well. It matches exactly a panel of four tiles given to the Columbia County Historical Society; both are similar to the tile in the Wyckoff house in Brooklyn.

A recollection by family members recorded in the early twentieth century indicated that the "fireplace openings were outlined in the beginning with pink and blue tiles" (Reynolds 1965:119). Interestingly, no examples of tile with purple (a.k.a. "pink") and white glaze have been recovered archaeologically or have been retained with the house, leading one to question the veracity of this tradition.

Fragments representing no more than seven examples



Figure 8.6. Polychrome tile.  
Historic Cherry Hill Collections.

of *basterde histories*, scriptural tile with spider corners and roundel borders, are part of the collections at Cherry Hill. Five of the fragments are said to have been collected by family members over the years in the yard (Figure 8.7). Two examples of this type have been recovered archaeologically, verifying their historical presence on this site. Tiles of this type were produced as early as 1720 in Makkum (Pluis 1998:387).

Fragments of four examples and one whole example of landscape tiles without borders and with spider corners are part of the Cherry Hill collection (Figure 8.8). One of these has been recovered archaeologically, confirming their historical presence on the site. These were probably manufactured ca. 1675–1760, and so were most likely associated with the earlier Holland house (Van Dam et al 1984:133; Pluis 1998:366). Eight tile fragments in the collection retain white glaze with no colored glaze present. While in most cases this can be attributed to the fragmentary nature of the specimens, in one example the fragment is large enough to suggest that it was a plain white tile.

By far the greatest number of tiles at Cherry Hill, including those installed in the second floor bedroom, are scriptural or landscape tile with ox head corners (Figure 8.9). Fragments representing no more than nine examples of this tile type have been recovered archaeologically on the site, and an additional 56 large fragments of this type and one whole example are part of the collections associated with the house without clear provenience and said to have been stored in the attic. These are in addition to the 16 examples that are installed in the second floor bedroom, so that as many as 81 tiles are represented by the collection. The majority of the balance of the fragments in the Cherry Hill collection that remain to be discussed are likely portions



Figure 8.7. An example of the *basterde histories* type tile, from Cherry Hill, Albany, New York (CH077a-c).  
Historic Cherry Hill Collections.



Figure 8.8. A landscape tile from Cherry Hill, Albany, New York (CH006).  
Historic Cherry Hill Collections.



Figure 8.9. An example of scriptural tile from Cherry Hill, Albany, New York (560d).  
Historic Cherry Hill Collections.

of scriptural tile of the same type. These include 41 fragments or mending groups of fragments recovered during archaeological investigations and 24 fragments or groups that are said to have been collected on the site by the family or staff. Thus it is likely that more than 100 examples of these two tile types were once installed either in the Holland house or in Cherry Hill, probably representing two contemporary installations, one with scriptural tiles and the other with landscape tiles. They were both likely manufactured in Utrecht ca. 1740–1780 (Pluis 1994:412). The landscape tiles are identical to examples excavated at the site of Kipsbergen, the Kip-Beekman house in Rhinecliff, Dutchess County, by Alvin Wanzer in the 1970s (Alvin Wanzer, personal communication 2010).

#### *Jacob Lansing house, northeast corner North Pearl and Columbia Streets (1710)*

The Jacob Lansing house bore a date in irons, "1710," on its south elevation until it was razed in 1888. At that time it was recognized as one of the few remaining early structures in the city. A contemporary newspaper article noted that

[t]here are some old Dutch tiles, representing St. Peter hearing the crowing of the cock, and the Prodigal Son, which originally decorated the first fireplace, around which the Indians ate and smoked their pipes with the Dutch traders. (*Albany Journal* ca. 1888)

Two of the tiles alluded to were hung on the wall of the house as late as 1886 (*New York Times* 1887:16). When the house was razed in 1888, a number of the tiles that formerly decorated its fireplace were salvaged. Four of these eventually were donated to the Albany Institute of History & Art by Howard J. Pemberton, the last owner of the property. Each depicts

a scene from the Bible set within a roundel and has the scriptural citation indicated within the scene (Figure 8.10). The corners are of the ox head type and the glaze is blue and white. They appear to include the two tiles specifically mentioned in the newspaper article quoted above. These tiles were manufactured in Utrecht during the second half of the eighteenth century (Pluis 1994:554–55). Some of the fragments excavated during work in North Pearl Street in the vicinity of the site of this house (see notes on the "City Wall" site, below) are of the same type as the four whole examples preserved at the Albany Institute of History & Art, and may have been used in the Lansing house.

#### *Pieter Quackenbush house (ca. 1630 and ca. 1657)*

The Pieter Quackenbush house was originally constructed sometime after 1630, when the site it occupied close to the west bank of the Hudson River in an area immediately north of the city gate was purchased from the Mahicans (HAA 2005:105). The house was constructed by the patron of Rensselaerswyck to entice a brickmaker to immigrate to the colony (HAA 2005:49). It was reconstructed after a flood in 1657, and was razed some time between 1686 and 1698 (HAA 2005:105).

Seven tile fragments were found on the site of the Quackenbush house. Five of these were apparently of one type: a central figure with *fleur de lis* corner motifs (Figure 8.11). These are sometimes known as "scenes from daily life" tiles and were produced ca. 1630–1650 (Pluis 1998:381). The only other presently known installation of this type of tile in the region is associated with paneling taken out of a ca. 1752 house in High Falls, Ulster County, in 1933, and since then residing in the collections of the American Wing at the Metropolitan Museum of Art (Manuels 2003). The early date of the High Falls tiles and the supposed late date of the installation make that attribution suspect, but it is possible



Figure 8.10. Tile from the Lansing house in Albany, New York (AIHA 1944.38.3a).  
Albany Institute of History & Art, gift of Howard J. Pemberton.



Figure 8.11. Three fragments (NYSM A-A2003.22a.16.01; A-A2003.22a.22.01ab; and A-A2003.22a.80.01) from the Quackenbush house overlaid on a whole example of the same type of tile.  
Courtesy New York State Museum, Albany, NY. Whole tile: Private collection.

that the tiles had been reused in the eighteenth century. The remaining two fragments found at the Quackenbush house may represent a landscape scene and retain an ox head corner. All seven fragments appear to have been associated with the first, pre-1657, occupation of the site. The last-mentioned fragment shows signs of having been burned.

A group of three tile fragments were found in proximity to a mid-eighteenth-century distillery located east of the Quackenbush house, but are likely to have been deposited during later fill episodes (HAA 2005). All three are fragments of what appear to be landscape tiles dating to the period 1675–1750.

#### *Schuyler house, Eagle Street*

A single tile represented by two fragments was recovered during archaeological excavations undertaken on the grounds of the New York State Court of Appeals in 2000 (HAA 2001a). It retains purple and white glaze with an ox head corner, and a portion of its New Testament subject from the gospel of Luke, enframed in a roundel, is preserved. This example appears to be identical to those found at the Van Schaick house in Cohoes, and likely shares a manufacturing date of sometime in the second half of the eighteenth century with them (Pluis 1994:412; Van Dam et al 1984:118). It was probably manufactured in Utrecht.

#### *Philip Schuyler house, "The Pastures" (1765)*

The Pastures, as the Philip Schuyler house has been known since soon after its completion, was constructed in 1761–1765 by a group of builders from the Boston area working together with local masons (Division of Historic Preservation 1977:18–25).

A total of eight tile fragments have been excavated at the Schuyler house during excavations associated with site work conducted in 1969, 1973, 1984, 1986, and 1994, directed by Lois M. Feister of the Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation (Feister 1995, 1998). Three of these fragments have blue and white glaze, four have purple and white glaze, and a single example retains only white glaze on its face. Three of the purple-glazed tiles retain portions of roundel frames, and two retain ox head corners. The blue and white fragments are of similar design. Two retain portions of roundel borders and one retains an ox head corner. The fragments are too small to make a positive determination regard-

ing subject matter.

The purple and white tiles, while also too small to facilitate determination of exact subject matter, are clearly scriptural tiles. They are of the same type as those found at the site of the Schuyler house on Eagle Street and on the grounds of the Van Schaick house in Cohoes. They date to the second half of the eighteenth century and were likely manufactured in Utrecht (Pluis 1994:412; Van Dam et al 1984:118).

#### *Philip Pieterse Schuyler houses, southeast corner of State and South Pearl Streets (ca. 1667)*

Tiles that are reportedly from this house, razed in 1887, are in the collections of the Albany Institute of History and Art (AIHA), the Albany Public Library, and the Schenectady County Historical Society (SCHS). In each collection the tiles are mounted in late-nineteenth-century frames, limiting their availability for close study. At AIHA, five tiles are mounted into a panel with lead cames, and an engraving of the house is included (Figure 8.12). Two additional tiles are individually mounted, as is the example at the Albany Public Library. At SCHS, six tiles are mounted into a wood frame. At least four of the tiles at SCHS date to the late nineteenth century, suggesting that the popularity of souvenirs from this house lead to the pawning off of new tiles for old. The other two tiles in that set feature male and female shepherds set within a bold roundel with spider corners, rendered in blue and white (Figure 8.13). These two tiles are of Dutch manufacture, and may date to the period 1750–1840 (Pluis



Figure 8.12. Assembled panel of five tiles and a woodcut engraving depicting the Schuyler-Staats house in Albany, New York (AIHA 1941.30a–e). Albany Institute of History & Art, gift of William Wendell Benson and Louisa Benson.



Figure 8.13. Tile possibly from the Schuyler-Staats house (Staats 4).

Courtesy of the Schenectady County Historical Society.



Figure 8.14. Tile reportedly taken from the "Back Room" of the Schuyler-Staats house when it was razed in 1887 (AIHA 1984.42.1). Signed "E. J."

Albany Institute of History & Art, gift of Mrs. Clarence J. McDonough.



Figure 8.15. A second tile said to be from the "Back Room" of the Schuyler-Staats house (AIHA 1984.42.2). Signed "E. J."

Albany Institute of History & Art, gift of Mrs. Clarence J. McDonough.

1998:367; Van Dam et al 1984:113).

More convincingly related to the Schuyler houses are those examples at the AIHA. According to labels attached to the backs of two framed individual tiles at



Figure 8.16. Tile from the Stevenson house, Albany, New York (AIHA 1959.123.18).

Albany Institute of History & Art, gift of Mrs. Jean Mason Browne.

the Institute, an example depicting a scene from daily life (possibly one of the "elegant pairs" series) originated in the "back room fireplace" (Figure 8.14). It is rendered in blue and white, with spider corners and no border, and may date to ca. 1680–1710 (Pluis 1998:383; Van Dam et al 1984:101). A tile from the "front room fireplace" features "fleur de lis" corners, and a landscape with a pair of reclining male figures set within a roundel, in blue and white (Figure 8.15). It, too, may date to the end of the seventeenth century.

The previously described panel of five tiles at the AIHA is indicated on an affixed late-nineteenth-century label to have come from "the Fire-place, front room, Second Story" of the house. A sixth tile, identical to one of this group, is in the collections of the Albany Public Library. Together the six tiles represent four different landscape scenes set within roundels with ox head corners, all in blue and white. Their overall design and corner type are suggestive of their having been manufactured in Rotterdam, ca. 1670–1700 (Pluis 1998:552).

The second of this pair of houses was later occupied by Johannes Schuyler and was razed in 1798 (Reynolds 1965:97). Tile fragments associated with this house may be among those recovered during work undertaken by New York State Museum staff in 1998 (Fisher 1999).

#### *Stevenson house, State Street (1780)*

A single tile, reputed to have come from this house, built in 1780 and razed in 1841, is preserved in the collections of the Albany Institute of History & Art (Figure 8.16). The house was locally known as "the rich man's house" and was described as "purely English throughout" and considered "quite different" from any house previously constructed in the city (Lossing 1857:454). The extant tile is blue and white and has a scriptural theme. It depicts Christ and a crouching figure flanked by two quickly drawn

hillocks, and may be a version of the *basterde histories* type. It bears close resemblance to tiles made in Makkum during the period 1725–1775 (Pluis 1994:473). The tile has ox head corners and the subject is set within a roundel border. The economical nature of this type of tile, in a house noted for its high level of finish, may be a reflection of the diminishing availability of tiles in the Albany area toward the end of the eighteenth century. It was given to the Albany Institute of History & Art by Mrs. Robert P. Browne in 1959.

#### *Jeremiah Van Rensselaer house, "Watervliet" (1668)*

A tile said to have been taken from the first Van Rensselaer manor house, sometimes called "Watervliet," was exhibited at the Bicentennial Loan exhibition held in 1886 in honor of the 200th anniversary of the city's charter. A pencil drawing of the Van Rensselaer house, formerly located at the corner of Broadway and Tivoli Street, was displayed, together with a "tile from the same." (*Bicentennial Loan Exhibition* 1886:63, 87). Other elements, including one of the leaded window sash, are known to have been saved from this building, razed in 1839.

It cannot presently be verified but three tiles in the collection of the Albany Institute of History & Art presented by Mabel L. Van Rensselaer are thought to be from this house. Each has spider corners and depicts "elegant pairs" of people and "children's games" in blue and white glaze, and is without borders (Figure 8.17). Tiles of this type have been dated to 1660–1700 and are said to have been manufactured in Harlingen by the Grauda brothers (Van Dam et al 1984:101). So it remains possible that these tiles decorated the interior of the first manor house.



**Figure 8.17.** An "elegant pairs" tile (one of three), possibly from the first Van Rensselaer manor house, Watervliet, New York (AIHA 1941.94b).

Albany Institute of History & Art, gift of Mabel L. Van Rensselaer.

#### *Stephen Van Rensselaer house*

##### *"The manor house" (1765)*

This house was constructed by Thomas Smith Diamond and a crew of local and Boston-trained builders beginning in 1763. The mantles in the house were fitted with marble facings and hearths in September 1766 (Van Rensselaer 1766). Tiles do not appear to have been used in the house initially. However, in 1813 Stephen Van Rensselaer paid for the installation or repair of a "Russian" stove in the house (Van Rensselaer 1813). No images of this stove exist, but it is presumed to have been covered with tin-glazed tile, as was typical for this form.

#### *102–110 State Street site*

A total of 15 tile fragments were recovered from this site, which is located on the south side of State Street between South Pearl and Lodge Streets. Excavations were first undertaken in 1987 by Hartgen Archeological Associates in preparation for the construction of a new office building for the State Comptroller's office, during which four fragments were recovered. These artifacts were subsequently lost by the building contractor and so are not available for study. What little is known about these examples is preserved in the artifact catalog generated at that time, which described one as having blue and white glaze, and that another was "buff bodied." (HAA 1997:3, 4, 8). All four fragments had come from the 102 State Street portion of the site.

Additional archaeological work was conducted in 1997 by Hartgen Archeological Associates, during which time 11 fragments were recovered (HAA 1997). The site had been expanded to include 104–110 State Street at that time. The assemblage includes an example of a shepherd ("snail") tile, and landscape tiles. One example featured a Rotterdam-type ox head corner, and another a spider corner design. All feature blue and white glaze. Three identified contexts at this site were dated between 1720 and 1820. The small size of these tile fragments makes further identification difficult. All are buff-bodied, however, and so likely post-date the middle decades of the seventeenth century.

#### *32 Howard Street site*

A single tile fragment of the "children's games" type, depicting two children at play, was recovered from the backdirt at this site, on the south side of Howard Street, in 1999 (HAA 2001c) (Figure 8.18). The tile is of a type popular from the middle decades of the seventeenth century until the nineteenth century and has blue and white glaze (Van Dam et al 1984:108). The fragmentary nature of this example makes attribution of a production date difficult; however, many artifacts from the Howard Street site were from the period ca. 1675–1750.

### *City Wall site, North Pearl Street in the vicinity of Columbia Street*

Excavations conducted in connection with road and infrastructure work during 2000 recovered 10 fragments of tin-glazed tile. All were blue and white glazed, and at least one fragment, preserving a "barred ox head" corner design, was likely produced in England in the first half of the eighteenth century. Two spider corners are in the assemblage, and two additional types of ox head corners are represented. At least two fragments appear to be scriptural tiles, with one being of the *bas-*



**Figure 8.18.** Fragment of a "children's games" tile recovered at the site of 32 Howard Street in Albany, New York.

Courtesy of Lois M. Feister.



**Figure 8.19.** Fragment of a *basterde histories* tile from the City Wall excavations on North Pearl Street in Albany, New York. (NYSM A-A2000.40c.126).

Courtesy New York State Museum, Albany, NY.

*terde history* type available after 1720 (Pluis 1998:387) (Figure 8.19). Charles L. Fisher identified this deposit as dating to the mid-eighteenth century. The New York State Museum Cultural Resource Survey Program recovered 34 sherds from this site and identified them as coming from at least 24 different tiles (Fisher 2005). Several examples date to the second half of the eighteenth century, and are likely part of the group of tiles that once decorated the interior of the Lansing house, located near this site, discussed previously in this chapter (Pluis 1994:555).

### *Dormitory Authority of the State of New York (DASNY) site*

The DASNY site, located on the east side of Broadway between Maiden Lane and Steuben Street, with its eastern boundary at Dean Street, was initially excavated by Hartgen Archeological Associates in 1996. The controversy attending the Dormitory Authority's decision to fast-track the excavations, and the subsequent resignation of Karen Hartgen from the job in protest, is well documented (Hartgen 2003). The excavations were completed by Collamer Associates, but no final report has ever been issued, and it is believed that the field notes associated with this collection, now housed at the Albany Institute of History & Art, may have been lost.

A total of 113 delft tile fragments were recovered during the phase 1B and phase 3 excavations. Provenience information exists only for the three fragments uncovered during the 1B excavations. These came from the central portion of 519–527 Broadway (two fragments) and from the lot occupied by 513–515 Broadway. The lot at 513–515 Broadway was associated with the Lansing family from 1795 through the nineteenth century; that at 519–527 was owned by Teunis Cornelissen in the seventeenth century (Huey 1996:5–6). The fragment from the Lansing lot depicts a portion of a clouded sky in blue and white glaze. The two fragments from the Cornelissen lot also have blue and white glaze; one retains a spider corner and is clearly a landscape tile of the type manufactured beginning in 1680 and continuing into the early twentieth century (Pluis 1998:366).

Of the remaining 110 tile fragments, 16 bear portions of designs worked out in purple and white glaze. The majority of these appear to represent scriptural tiles, with their subjects set in roundels. Three fragments retain ox head corners. Two fragments bear a bell-flower corner motif in dark magenta glaze, not otherwise encountered during the course of this survey (Figure 8.20).

Six fragments retain portions of a brownish-purple marbled glaze of a type recovered at other downtown Albany sites (Figure 8.21). Marbled tiles of similar design have been excavated at St. Mary's City, Maryland, at the

Country's House and the Van Sweringen Lodging house sites (Stone 1987:16–17). Examples of this type of tile have also been encountered at the Broad Street Financial Center site in downtown Manhattan (Greenhouse Consultants 1985:V.5 and 23).

Five fragments retain no colored glaze; two are large enough to indicate that they probably were all-white tiles. Two fragments of tiles with blue and powdered purple glaze were recovered. One retains a portion of an octagonal frame; the other retains a portion of a lobed roundel frame.

By far the largest percentage of the tile assemblage from this site is represented by blue and white tiles. Nine of these fragments are from tiles that did not have borders. Three of these retain spider corners, while a fourth retains an ox head corner of seventeenth-century type. Three fragments, too small to determine whether or not they were associated with roundel borders, have spider corners. An additional fragment, of similar size, retains an ox head corner. Thirty-two of the blue and white tile fragments retain portions of roundel borders. Of these, 10 retain all or part of an ox head corner. No



Figure 8.20. Tile fragment with bright magenta bellflower corner motif (AIHA DASNY Collection, E5-0633). Albany Institute of History & Art.



Figure 8.21. Fragment of a marbleized or faux marble tile found at the DASNY site (AIHA DASNY Collection, E5-1009). Albany Institute of History & Art.

other corner types are represented. The majority of the tiles in this sub-group appear to be scriptural tiles likely dating to the period ca. 1740–1770.

#### *Fort Orange (ca. 1624) site*

Rescue archaeology conducted by Paul R. Huey in the winter of 1970 recovered more than 40 tile fragments from the site of the earliest fort within the bounds of modern-day Albany (Huey 1988). Most of these dated to the period ca. 1624–1650. All had blue and white glaze. Charlotte Wilcoxen, the first scholar to discuss the ceramic assemblage from Fort Orange in print, perhaps unfairly characterized these fragments as of

a common type having no particular aesthetic appeal . . . No examples of the colorful and more expensive polychrome tiles of the first-half [sic] of the seventeenth century were recovered, possibly because of the low economic status of most citizens of the new settlement. (Wilcoxen 1987:39)

A total of 19 tile fragments or groups of mending fragments are associated with the Hendrick Andriessen van Doesburg occupation, which is believed to have occurred from ca. 1651 to ca. 1664. An additional three fragments were found in the fill within the foundation of the Van Doesburg house; at least one of these is from a much later period and is of the *basterde history* type. Two examples of tiles featuring vases of flowers were recovered from the house site; these are similar to contemporary fragments found at the Schuyler Flatts site (see below). Examples from both sites have ox head corners. Several fragments are from tiles that feature a central figure (human or animal) and have ox head corners but no border (Figure 8.22). These are similar if not identical to a whole example recently excavated in Jamestown, Virginia (Straube 2006:253). A single example of a tile featuring an animal without border or corner motifs

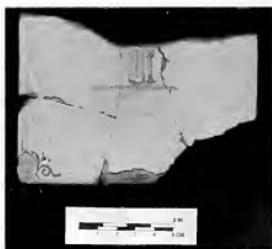


Figure 8.22. A tile with "ox head" corners and a central figure, from Fort Orange (NYSOPRHP A.FOR.1971.408a–d). Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.



**Figure 8.23.** Animal tile without border or corner motif, excavated at the site of Fort Orange (NYSOPRHP A.FOR.1971.895.3a-b).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.



**Figure 8.24.** Fragment of a tile with a perched bird as its subject, from Fort Orange (NYSOPRHP A.FOR.1971.1).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

was encountered (Figure 8.23); it is similar to contemporary examples found at both Cralio and at Schuyler Flatts that have ox head corners (Figure 8.35). Many of the remaining fragments are too small to facilitate further identification.

A single tile fragment was recovered from what is now believed to be the site of an early guardhouse dating to ca. 1624–1647 (Paul R. Huey, personal communication, March 2009). This fragment (A.FOR.1971.714) retains a glazed finish but does not include a design. The thickness of this example (9.2 mm or .36 in) and the red color of its body support the assigning of a seventeenth-century date for its production.



**Figure 8.25.** Unusual corner motif from Fort Orange (NYSOPRHP A.FOR.1971.212).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

Additional tile types represented in the Fort Orange artifact assemblage include birds without frames with ox head corners (Figure 8.24). Two fragments, one with an ox head corner, retained portions of roundel borders and match an example found during the City Wall site excavations on North Pearl Street (Figure 8.25).

#### *James Street Fill site*

Three tile fragments were recovered from fill areas in James Street during monitoring by Hartgen Archeological Associates, Inc., in 2000. The fill is of unknown date, but may have been deposited shortly after the 1797 fire that extended to this part of the city (*Albany Centinel* 1797). Two of the tiles have blue and white glaze and bear fragments of landscape scenes. The third tile has traces of purple glaze on it. The two blue fragments appear to date to the period ca. 1680–1750.

#### *Lutheran Church Lot site, South Pearl Street*

Archaeological excavations were conducted in 1998 by the New York State Museum Cultural Resource Survey Program in South Pearl Street in advance of road and infrastructure improvements. A total of eight tile fragments were uncovered in the vicinity of the site of an early Lutheran church and parsonage, near the corner of South Pearl and Beaver Streets, and may have been used in the parsonage (Fisher 1999:2). Of the eight examples, five preserved blue and white glaze; the remaining three, white glaze only. One example retained an ox head corner; it was probably manufactured in Utrecht in the second half of the eighteenth century (Pluis 1994:555). Two other fragments had been burned.

#### *Maiden Lane site*

Archaeological investigations previous to the construction of the west abutment of the new pedestrian bridge at Maiden Lane over Interstate 787 in 2000–2001 by

Hartgen Archeological Associates recovered a total of four delft tile fragments from three different contexts, all associated with fill episodes (HAA 2001b). Three of the four fragments bore blue and white glaze, and the fourth retained a powdered purple glaze, a possible indication that it originated with a blue and powdered purple tile of a type encountered at the DASNY and SUCF sites in downtown Albany, dating to 1720–1770. One of the blue and white examples retained a portion of the image of a windmill, and probably dates to the late seventeenth century.

#### *Maiden Lane Pedestrian Bridge site*

Excavations in preparation for the construction of the west piers of the Maiden Lane pedestrian bridge were conducted by Hartgen Archeological Associates in 2000–2001. Three different component sites yielded a total of 15 tile fragments.

Five fragments were retrieved from within a stone culvert running under the north side of Maiden Lane, constructed in 1788 (HAA 2002c:22). Three of these evidenced exposure to extreme heat, and may have found their way into the culvert after the fire of 1797. Three fragments bore blue and white glaze, one of which retained a spider corner. One purple and white tile fragment was found; the fifth fragment bore only white glaze. A single fragment was found in a separate deposit, associated with the city stockade, predating 1762 (HAA 2002c:27). This fragment retained blue and white glaze and a portion of a roundel border.

Nine tile fragments were excavated in contexts not associated with any features. Four of these showed signs of having been exposed to extreme heat. One retained a partial roundel border and another example preserved a spider corner. Eight of the nine fragments were from blue and white tiles; the ninth example retained only white glaze. These fragments may have been deposited during fill episodes in the late eighteenth century in association with the construction of a ferry dock at the end of Maiden Lane. The thicknesses represented by this group of tiles (6.5 to 8 mm or 0.26 to 0.31 in) indicate a probable eighteenth-century date for their production. Most fragments are too small to make a determination with respect to site of production, except to say that they appear to be primarily of Dutch manufacture.

#### *Picotte-DEC site*

In addition to the tile fragment associated with the John Bogert house, 17 fragments were recovered during the course of archaeological excavations in a two-block area in downtown Albany bordered by Columbia Street to the south, Broadway to the west, Orange Street to the north, and Water Street to the east. A segment of



**Figure 8.26.** Landscape tile fragment with design set in a roundel and with spider corners, from the John Bogert house, Albany, New York. (NYSM A-A2003.23.266.118a). Courtesy New York State Museum, Albany, NY.

Montgomery Street divided the east and west halves of the project area. The excavations, undertaken by Hartgen Archeological Associates during 1987 and 1997, were located in a portion of the city largely destroyed during a fire in 1797.

Of the 17 fragments, five retain ox head corners, portions of roundel frames, and blue and white glaze. Two can be positively identified as biblical scenes. One has bright blue glaze and the corner design is suggestive of manufacture in Rotterdam. One single fragment of purple and white glazed tile was recovered. It preserves an ox head corner and a portion of a roundel frame but is not otherwise identifiable.

Of the five fragments recovered from under the basement floor boards at the site of the John Bogert house, most appear to be landscape scenes set within a small roundel border (Figure 8.26). Three tile fragments, including that identified as having been used in the Bogert house, retain spider corners. It appears likely that several of these additional fragments were associated with the Bogert house, possibly being deposited under the floorboards during the construction process. Tiles of this type were manufactured beginning in ca. 1650 and continuing for some time afterward (Pluuis 1998:367).

Several of the tiles recovered during the Picotte-DEC excavations show signs of being exposed to great heat, no doubt the result of the 1797 fire. Three fragments, bearing blue and white glaze, are too small to identify.

#### *State Street Blockhouse site*

A total of 55 tile fragments were recovered during rescue archaeology undertaken by Paul R. Huey in advance

of the creation of a utility trench cut through State Street and part of Broadway in 1972–1973 (Cardinal 1999). Three of these fragments were excavated in the vicinity of 510 Broadway, and are believed to be associated with a wall of an eighteenth-century blockhouse. All three fragments have blue and white glaze, and two show signs of having been burned. Due to the small size of these fragments, their subject matter and place and date of manufacture cannot be positively determined. All have buff-colored bodies, and so probably date after the middle decades of the seventeenth century.

An additional six fragments are associated with an eighteenth-century blockhouse in State Street, near its intersection with Pearl Street. Four of these retained blue and white glaze, while two retained only white glaze. Two examples had spider corners. The small size of the fragments makes further identification impossible, except to note that they all had buff bodies, and measured between 6.8 and 8.0 mm (0.27 and 0.31 in) in thickness, suggesting a probable manufacture date during the eighteenth century. Additional fragments were recovered near this site during the Pearl Street excavations in 1998 by the New York State Museum.

The remaining 46 fragments are not positively associated with a specific structure and may have been deposited during fill episodes. All had blue and white glaze, except a single fragment that probably represents an eighteenth-century scriptural tile, which had purple and white glaze, and a single example of marbled tile, identical to examples of the type found at the SUCF and DASNY sites. Among the other fragments, examples of shepherd ("snail") tiles (Figure 8.27), scriptural tiles with "Utrecht" corners, spider corners and landscape scenes are represented. As a group, these fragments appear to date to the period ca. 1675–1750.



**Figure 8.27.** Shepherd tile fragments from State Street in Albany, New York, and Schuyler Flatts in the town of Colonie, New York, of the "snail" type (NYSOPRHP A.S.S.1972.14.2 and A.S.F.1971.104.2).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

#### ***State University Construction Fund (SUCF) site***

The SUCF site was bound on the west by Dean Street, on the south by Exchange Street, to the east by Water Street and on the north by Maiden Lane. Excavations were undertaken by Hartgen Archeological Associates, Inc., during 1998–1999 in anticipation of construction of a 600-car parking garage for the State University Construction Fund, which was completed in 2000 (HAA, Inc. 2002a).

A total of 195 tile fragments were retrieved from 75 different contexts at the SUCF site, many of which were associated with fill episodes. The majority (125) of these were blue and white tile. Of this subset, 23 had identifiable spider type corners accompanying landscape scenes without frames or borders. Most of these were found in context 996, which was comprised of a domestic assemblage including architectural remains dating to the seventeenth and eighteenth centuries, with the tile component appearing to date to ca. 1680–1770 (HAA 1998:17) (Figure 8.28). Six fragments in the blue and white subgroup had roundel borders and spider corners. Most are too small to make an identification of their subject, but they apparently represent scriptural tiles of the *basterde histories* type, usually from Harlingen or Makkum and produced from 1720 onward (Pluis 1994:206–208; Pluis 1998:387).

Twenty-six fragments or associated pieces of the blue and white tile assemblage have ox head corners and scriptural scenes set within roundel borders. An additional 39 fragments retain neither border or corner motifs, but appear to be fragments of scriptural tile of the same type. These likely were made in Utrecht in the second half of the eighteenth century (Pluis 1994:555). Two fragments retain portions of landscape subjects set within small roundel borders, but do not retain their corners.



**Figure 8.28.** Landscape tile from the SUCF site in Albany, New York (NYSM A-A2002.20.996.117a–b).

Courtesy New York State Museum, Albany, NY.

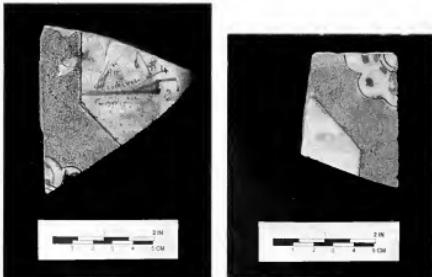


**Figure 8.29.** Blue with powdered purple glaze tile from the SUCF site in Albany, New York (NYSM A-A2002.20. 157.110a). Courtesy New York State Museum, Albany, NY.



**Figure 8.31.** Fragment of a tile possibly made in Liverpool, recovered from the SUCF site in Albany, New York (NYSM A-A2002.20.17.14).

Courtesy New York State Museum, Albany, NY.



**Figure 8.30.** Two fragments of blue and powdered purple glazed tile with octagonal borders from the SUCF site in Albany, New York (NYSM A-A2002.20.280.11a-c and A-A2002.20. 627.40.1).

Courtesy New York State Museum, Albany, NY.

Ten fragments are of the blue and powdered purple type with an octagonal central reserve or frame and quarter flowers at the corners. A single fragment retains a "carnation" corner and portions of a lobed round enframement (Figure 8.29). One fragment retains only a portion of the powdered purple field. Those with the octagonal reserves are probably landscape themed, and were made in Utrecht ca. 1720–1750 (Pluis 1998:559) (Figure 8.30). The example with the lobed border was possibly also made in Utrecht ca. 1730–1770 (Pluis 1998:568).

A total of 48 fragments or mending groups of fragments having purple and white glaze were recovered at the SUCF site. Of these, the majority (40) had roundel

borders, and all appear to represent fragments of scriptural tiles. Twenty fragments retain ox head corners on an identical type to those in the blue and white glazed sub-assemblage. These were likely made in Utrecht in the second half of the eighteenth century (Pluis 1994:554–555). One example of what is probably a scriptural tile, with a beaded octagonal border with incurved corners and "quarter rosette" corner motifs, is among the assemblage as well. This appears to have been manufactured in Liverpool, ca. 1750–1775 (Horne 1989:42) (Figure 8.31). A single example of the brownish-purple marbled tile of the type recovered in greater numbers at the DASNY site was recovered at SUCF.

All of the tile fragments collected during Phase 1B archaeological investigations were retrieved from a context associated with a fill event preceding the creation of a stockade along the waterfront in the 1760s (HAA 2002a:1.12–1.13). A number of the tile fragments from the Phase 3 work were also from fill episodes associated with the expansion of the city eastward during the period ca. 1760–1780 (HAA 2002a).

### Albany County, Bethlehem

*Rensselaer Nicoll house, "Bethlehem house" or "Cedar Hill" (ca. 1736? and ca. 1780)*

A single tile from this house is in the collection of the Albany Institute of History & Art, the gift of Julia Van Rensselaer Smith. It is a purple and white glazed tile depicting a scriptural scene without written text, set within a roundel and with ox head corners. The subject is Christ being tempted in the desert (Figure 8.32). This tile dates to the period ca. 1740–1775, and was probably manufactured in Utrecht (Pluis 1994:209).

Twenty-two fragments representing no more than 12



Figure 8.32. Tile from the Rensselaer Nicoll house in Bethlehem, New York (AIHA 2003.4). Albany Institute of History & Art, gift of Julia Van Rensselaer Smith.

Museum of Art. Excavations at the site were conducted in January 2004 by Hartgen Archeological Associates, Inc. (HAA 2004). A total of four tile fragments were recovered during the course of this work and during the subsequent removal of the superstructure. All were blue and white tiles with double roundels, and one of the fragments appears to retain a portion of an ox head type corner. Only one tile had an identifiable subject, a New Testament scene from the Gospel according to John. The construction date of this house has been established by dendrochronological sampling (Cook and Callahan 2004a). These tiles have been attributed by Peter Kenny to the period ca. 1740–1760, and were possibly made in Rotterdam (Kenny 2006).

#### Pieter Winne house (ca. 1723)

The construction date of this house has been established by dendrochronology to have been ca. 1723 (Wheeler 2004:2). A total of 30 fragments, two of which mend, were recovered by the staff of the Bethlehem Archaeology Laboratory during work on the site in 2001, and 15 of these remain in their collections. The balance has been returned to the property owner.

All of the tile fragments appear to belong to the *basterde histories* type of scriptural tile, typically manufactured in Harlingen or Makkum and produced beginning in ca. 1720 and throughout the eighteenth and early nineteenth centuries (Pluis 1994:206–208; Pluis 1998:387). The surviving corner motifs are all of the spider type, and all borders are of the roundel form. Every fragment that retains color glaze is of the blue and white variety.

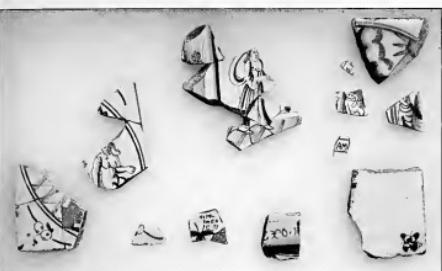


Figure 8.33. Collection of tile fragments recovered from areas adjacent to the Rensselaer Nicoll house by the Bethlehem Archaeology Laboratory.

Private collection. Photo by Stephen Ross.

individual tiles were recovered during archaeological excavations in the vicinity of the house by members of the Bethlehem Archaeology Laboratory under the direction of Floyd Brewer in the 1980s (Figure 8.33). These are presently in the collection of the property owner. The majority of these fragments are from blue or purple and white scriptural tiles matching the example in the Albany Institute of History & Art. Examples of two additional types were recovered. One features a spider corner with what is probably a landscape scene; a second may be a portion of a floral corner motif.

#### Daniel Pieter Winne house (ca. 1751)

This house was removed for partial incorporation into a new display in the American Wing of the Metropolitan

#### Albany County, Coeymans

##### Ariaantje Coeymans house (ca. 1730?)

Delft tiles were installed in this large stone and brick house sited on the west bank of the Hudson, which was constructed sometime during the second quarter of the eighteenth century for Ariaantje Coeymans. The house is perhaps the largest in the Hudson Valley surviving from the eighteenth century, and it served as the dwelling of the owners of the Coeymans patent. A smaller, earlier house survives in part to the north of this dwelling. It dates to ca. 1710.

Portions of the installation at the Coeymans house remained in situ until ca. 1980. Tiles of two geometric patterns were discovered under baseboards dating to ca. 1840 in the second floor hall of the house (Michel 1974:138) (Figure 8.34). This is the only known New World installation of this type, which was common in the Netherlands and is seen in a number of paintings of Dutch interiors by Vermeer and his contemporaries. Vintage tiles of a different pattern were installed in their

place, and the original tiles are curated by the current owners of the house. Fragmentary examples of the same two types of tile have been recovered over the years during the course of gardening near the house, suggesting the possibility that these two tile designs were the only ones used at this site. One of the two designs is identical to those installed in Queen Mary's kitchen cellar in 1690–1692, in *Paleis Het Loo* in Apeldoorn (Van Lemmen 1997:90–91). Tiles of this type were produced over a long period of time; Pluis cites examples dating from 1700–1900 (Pluis 1998:263). These examples may have been installed when the house was initially constructed, ca. 1730 or so, or when it was extensively remodeled in the late eighteenth century. Additional tiles are said to have been installed in the fireplace surrounds, but were "removed by souvenir-hunters" before 1929 (Reynolds 1965:74). A former resident recalled that "at one time tiles covered the area between the floor and the chair rail of the first floor hall" but "were . . . removed from the house in the late nineteenth century and given away . . . as curiosities" (Michel 1974:138). The types of tile used for these installations are unknown, if different from the two designs preserved in other locations in the house.

### Albany County, Cohoes

#### *Wessel Van Schaick house (ca. 1762)*

Six fragments of purple and white glazed tile were recovered during archaeological work conducted by Hartgen Archeological Associates and elementary school students during summer camps held at the house from 2003 to 2006. One fragment retains a portion of an ox head corner, and another retains part of a roundel border. Although none of the fragments are large enough to facilitate definitive identification of their subject matter, they appear to be scriptural tiles. They probably date to ca. 1725–1775 and were likely manufactured in Utrecht. They bear close resemblance



Figure 8.34. The two geometric tile types used at the Coeymans house (Coeymans 01a–e and 12.a–b).

to those found at The Pastures and at the Schuyler house on Eagle Street, both in Albany, and at the Rensselaer Nicoll house, in Bethlehem (Figure 8.32).

### Albany County, Colonie

#### *The Arent Van Curler house (ca. 1643) and the Philip Pieterse (or Pieter Philipspe) Schuyler house, "The Flatts" or "Schuyler Flatts" site*

The site of The Flatts was occupied almost continuously by European settlers from ca. 1642 when Adriaen van der Donck constructed a house there until the middle of the twentieth century. In 1643 Arent Van Curler moved to The Flatts and likely constructed the first permanent house on the site by a European. The site was purchased from the Van Rensselaer family by the Schuylers in 1672 (Huey 1995:18). The Schuyler family constructed a dwelling near the site of the Van Curler house, probably in the late seventeenth century. This second house at The Flatts burned in the middle of the eighteenth century and was rebuilt in the 1760s. It is likely that the tile assemblage that comes from this site represents the first two periods of occupation.

A total of 129 individual and associated groups of tile fragments were excavated in 1971–1973 by Paul R. Huey of the New York State Historic Trust, in association with the Heldeberg Workshop, and by Bobby Brustle in 1980. Brustle's excavations were undertaken entirely within what Huey has identified as "Cellar 2," the earliest historical feature of this complex site, and associated with Arent Van Curler.

The combined collections of tile fragments from this feature include 12 individual or mending groups of fragments of tiles featuring animals with ox head corners (Figure 8.35). As many as 25 "vase-of-flower" type



Figure 8.35. Animal tile from Schuyler Flatts (Brustle Collection C2-087a–c). Courtesy of Bobby Brustle.



**Figure 8.36.** "Vase-of-flowers" tile from Schuyler Flatts (Brustle Collection C2-088).  
Courtesy of Bobby Brustle.



**Figure 8.37.** An animal tile with "meander," "fretted," or "Wan Li" corner treatment from Schuyler Flatts (Brustle Collection C2-090a-d).  
Courtesy of Bobby Brustle.

tiles with ox head corners were also recovered (Figure 8.36). Five examples of tiles with "Wan Li" or fretted corners were also recovered, including one nearly whole example featuring a deer set within a roundel. This last is a rare instance of the use of a "second" quality tile in a regional installation (Figure 8.37). All three types of tiles have blue and white glaze. All have a thick (between 10 and 14 mm) terracotta body and were probably manufactured ca. 1625–1650. Additional examples of two types of shepherd tiles, one similar to an example found in State Street in Albany, were also recovered (Figure 8.27 and Figure 8.38). These last two fragments may date to the late seventeenth or early eighteenth century.



**Figure 8.38.** Fragment of a shepherdess tile from Schuyler Flatts (NYSOPRHP A.SF.1971.308.1).  
Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

### Albany County, Guilderland

#### *Freeman house, Guilderland Center (ca. 1734, 1750 and 1800)*

The earliest portion of the Freeman house is said to date to ca. 1734, and it was expanded to a two-room plan about the middle of the century. In 1778 the property was conveyed by Stephen van Rensselaer to Barent Mynderse, whose family occupied it until 1868. During a restoration of the house in 1966, Robert A. Davis discovered purple and white tiles of three different designs in situ around the firebox of the south chimney of the house which had been walled over (Pettit 1966) (Figure 8.39). The Rumford-type firebox and other details of the chimney construction indicate a date of ca. 1800 for this feature and, therefore, the tiles were probably installed during the Mynderse occupancy.

A total of 28 whole tiles and fragments from at least two additional tiles were used in the firebox surround. Three designs are represented. Ten examples feature a central motif of a vase of flowers with Wan Li corners (Figure 8.40); the remaining 18 whole tiles are of two different designs featuring elaborate foliage, of a type sometimes called "ornamental" (Korf 1964:130) (Figure 8.41). The space at the bottom of the right-hand jamb is occupied by fragments assembled from both types of these ornamental tiles. Eleven tiles of the more bold of the two designs form the lintel of the surround. Pairs of tiles of the lighter design are located above and below groups of five of the vase-of-flower tiles on the jambs. The "vase-of-flowers," or "Bloempot," tiles are of a type available beginning in the late eighteenth century (Pluis 1998:427; Korf 1964:94). The ornamental tiles are of a

type popular in both the eighteenth and nineteenth centuries (Korf 1964:130; Pluis 1998:222). Thus, these tiles likely were new when installed in ca. 1800.



**Figure 8.39.** Mantle of the Freeman house, showing the installation of tiles.  
Private collection. Photo by the author.

### Columbia County, Claverack

#### *Dr. John Bay house (ca. 1770?)*

A description of the tiles that were utilized in this house is preserved in a nineteenth-century publication:

Each of the principal rooms . . . was provided with a fire-place, and the mantels of two of them were decorated with quaint Holland tiles, after the style of the first patron's residence in East Albany [Crailo]. Owing to their great rarity a large number of these tiles had been removed before the property came into possession of the present owner, but a few of them are preserved and regarded as valuable relics. They are about six [sic] inches square, of white porcelain [sic], and ornamented with various Scripture scenes in blue. Although crudely drawn, from an artistic point of view, they are not without strong effect and characteristic fidelity to the early conceptions of Bible history. (Webb 1892:81)

This house was taken down in the 1980s and reconstructed in the Town of Livingston. No tiles remained in it when visited in the 1970s (Roderick Blackburn, personal communication 2008).

#### *Jacob Rutsen van Rensselaer house (ca. 1800)*

The Jacob Rutsen Van Rensselaer house was documented by the Historic American Buildings Survey in 1934 (Figure 8.42). Drawings and photographs executed at that time record the presence of 177 tiles around the firebox and bread oven of the basement kitchen. This installation appears to be comprised of at least three different types of tile, none of which have corner motifs,



**Figure 8.40.** "Vase-of-flowers" tile from the Freeman house.  
Private collection. Photo by the author.



**Figure 8.41.** Two types of "ornamental" tiles from the Freeman house.  
Private collection. Photo by the author.



**Figure 8.42.** Historic American Buildings Survey photograph of the tile installation in the basement kitchen of the Jacob Rutsen Van Rensselaer house, Claverack, New York, 1934 (HABS NY-5-A-22).

Historic American Buildings Survey.

borders, or frames. Subject matter of the three groups includes animals, scenes from daily life (possibly "elegant pairs"), and landscape scenes.

Although the house is extant, it has not been possible to verify if this installation remains in place, or if, in fact, it is original to the house.

### Columbia County, Clermont

#### *Livingston house, "Clermont" (ca. 1730)*

Although no historical references to the tile used at Clermont have been located, it was apparently the site of one of the larger installations in the Hudson Valley. During the course of salvage excavations undertaken at the site during 1975, 1976, 1979 and 1980, a total of 1,541 fragments of white tin-glazed tile was recovered (Figure 8.43). This assemblage, although by far the largest of any of those surveyed for this paper, represents only a fraction of those that are thought to be contained in a large midden on the site, created after the destruction of the house by fire (Clermont 1976:n.p.). This group of tile fragments probably reflects an installation in a stair hall or kitchen. The tiles were installed sometime in or after ca. 1730 when the house that was burned by the British

in the autumn of 1777 was constructed.

While a large number of these tiles are burned, and in many cases fused together, a significant percentage bears no burn marks or signs of having been installed. It is possible that some of these materials were wasters deposited during the construction phase of the house, ca. 1730.

### Columbia County, Kinderhook

#### *Van Aken house (1737)*

Three tile fragments were recovered during restoration work at the house in May-June 1974. They were described at the time as appearing to be scriptural tiles, and that two of the three fragments represented the same subject (Blackburn and Piwonka 1974).

A number of tile fragments were recovered in the immediate vicinity of the Van Aken house during archaeological investigations undertaken in 1972 and 1975-1976 and in 2003. While it is known that tile fragments were recovered during the course of the earlier work, these cannot presently be located. Ruth Piwonka recalls that one fragment comprised approximately half of a tile that had blue and white glaze, and that it was a scriptural tile (Ruth Piwonka, personal communication 2007). The three fragments excavated in 2003 are in the collection of the Columbia County Historical Society. Two of these retain blue and white glaze and depict landscape scenes in roundels. One of these retains a spider corner. Landscape scenes of this type were made from 1650 onward in the Netherlands (Pluis 1998:367). The third fragment retains white glaze only. The "children's games" tiles that are currently installed in the house were a gift of the Netherlands in the 1960s.

#### *David Van Schaack house (1774)*

This house, constructed in 1774 for David Van Schaack and still standing in the Village of Kinderhook, was the subject of an article in the *Magazine of American History* in 1878. A long description of one of the fireplaces was included.

In one of the upper rooms is still preserved an old fashioned fireplace, the jambs of which are ornamented with quaint Dutch tiles, which are a great curiosity. Each tile is about five inches square, and the number of them is fifty-four. On each tile is a pictorial illustration, in blue and white, of some scriptural scene, among which are the following subjects: Elijah going up in the chariot of fire, David killing the lion, Peter, and the cock crowing, Christ healing the blind, the cripple carrying his bed, Cain and Abel, Elijah fed by ravens, Mary washing the Saviour's feet, Christ washing Peter's feet, the good Samaritan, Tobias led by an angel, temptation of Adam and Eve, Sampson pulling down the



Figure 8.43. A sampling of white tile fragments from the site of the Livingston house at Clermont, New York (NYSOPRHP A.CL.1980.1102.1-20).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

pillars of the temple, Moses with the two tables of stone, the prodigal son feeding with swine, Christ and the barren fig tree, John baptizing Jesus, Dives and Lazarus at table, Christ rising from the tomb, Christ raising Lazarus, Joseph taking Jesus from the cross, death of the false prophet, Jonah cast up by the whale, the flight into Egypt, the prodigal's return. The other fireplaces in this house were originally ornamented with similar tiles . . . . (Van Schaack 1878:516)

This installation remains in place and is located in the northwest chamber (Figure 8.44). Two other groups of tiles decorate fireplaces in the southeast (encompassing 68 blue and white landscape and figural tiles, Figure 8.3) and northeast chambers. The second of these retains 26 purple and white tiles featuring a beaded octagonal border with incurved corners and landscape themes (Figure 8.45). They are similar to an example collected at the SUCF site in Albany, and like it, may have been manufactured in Liverpool in ca. 1750–1775 (Horne 1989:42).

#### *Wendover house*

A house probably dating to the early eighteenth century and occupied by the Wendover family was formerly located in the village of Stuyvesant. It was razed at some date before 1878; significant details of its appearance were recalled by Franklin Ellis in a history published in that year.

In the old town [of Kinderhook], in what is now Stuyvesant, was a house long owned by the Wendover family, which contained a chamber all

finished with cherry wood. On one occasion, General Washington, in passing from New York to Albany, lodged at this house, and occupied the "cherry chamber," which was long preserved on account of this association. The house itself was a low but comfortable structure, and had a spacious mantel, constructed of "Scriptural tiles," after the manner of the old Holland houses. This and many other historic houses of old Kinderhook have been demolished, and even the recollection of them is vague and contradictory. (Ellis 1878:221)

Ellis is the only source for information on the scriptural tile installation in this house.

#### **Columbia County, Livingston**

##### *Dirck Wesselse Ten Broeck house, "The Ten Broeck Bouwerij." Town of Livingston (1762)*

This two-story brick house with center passage and prominent gambrel roof is said to have had blue and white tiles facing the fireplace in the north parlor, which had been replaced with marble facing before 1929 (Reynolds 1965:103). The house still exists, and is known for its prominently displayed date of construction, worked into the brick of its front elevation.

#### **Greene County, Catskill**

##### *Dies house (ca. 1763)*

The Dies house was located on the Lindesay Patent in the town of Catskill, Greene County, and was constructed ca. 1763. A nineteenth-century description of



**Figure 8.44.** Tile installation in the northwest chamber of the David Van Schaack house, Kinderhook, New York.  
Photo by the author. Courtesy of Audrey and Stuart Peckner.



**Figure 8.45.** Tile installation in the northeast chamber of the Van Schaack house in Kinderhook, New York.  
Photo by the author. Courtesy of Audrey and Stuart Peckner.

the house includes some information regarding an installation of tiles:

The fire-place in the southwestern room of the first floor was once adorned with quaint Dutch tiles. It is not known by whom or at what time these were removed . . . Old men still living in the town of Catskill remember this antique fire-place. The tiles, which were fastened by mortar to the jambs, were about four inches square, made of coarse white pottery and adorned with grotesque figures in blue. These figures represented Scripture scenes—Abraham offering up Isaac, Queen Esther before Ahasuerus, and Lazarus coming out of his tomb. In the last instance, the restored and overjoyed man is waving above his head a Dutch flag. (Beers 1969:88)

This nineteenth-century source is likely to have been at least partially transcribed from the description of the Salisbury house by Brace in 1880, and as such may be wrong in other details. The house is no longer extant.

## Greene County, Coxsackie

### Peter Van Bergen house (ca. 1725)

A panel comprising of 12 purple and white scriptural tiles is said to have come from the Peter Van Bergen house in Coxsackie village (Figure 8.46). The house in which they originally were installed is supposed to have been constructed ca. 1725 and was razed about 1820. The tiles were collected from a midden on the site of the house by family descendant William Van Bergen Van Dyck, reassembled (in some cases using fragments from other tiles, cut to fit), and presented to the Greene County Historical Society in 1975 (Shelby A. Mattice, personal communication 2008).

The subjects of these tiles include the expulsion of Adam and Eve from paradise, Moses and the ten commandments, and several scenes from the New Testament. Each has ox head corners, and the subjects are enframed in roundels. These tiles date to ca. 1750–1800, and were probably manufactured in Utrecht (Pluis 1994:554). They lack the written scriptural references of the examples pictured in that source, and may

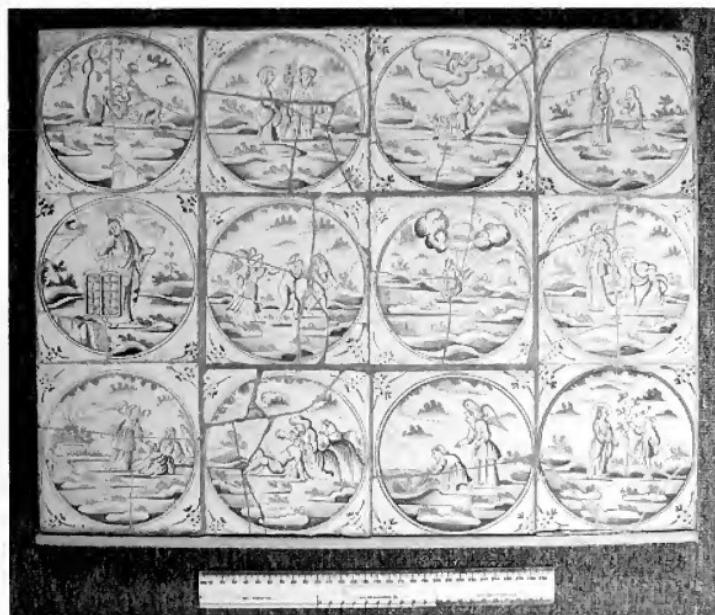


Figure 8.46. Panel of 12 tiles from the Peter Van Bergen house, Coxsackie village (GCHS 75.3.1–12).  
Courtesy of the Greene County (NY) Historical Society.

be of an earlier date. They are similar to examples excavated at the SUCF site in Albany.

#### *Peter Van Bergen house, West Coxsackie (1764?)*

A single reference to the tiles formerly in this house was first published in 1906.

The Van Bergen homestead stands on the main street of West Coxsackie, where it may be seen of all men. Many years ago it fell on evil days, was fast crumbling to pieces, was supposed to be haunted, the beautiful tiles around its fireplaces were taken out and now adorn the parlors of various neighboring houses, but of late [1906] it has renewed its youth . . . On the front facing the road are iron letters P. V. D. I., on the rear 1764; the letters stand for Petrus or Peter Van Bergen. (Hine 1994:18)

#### **Greene County, Leeds**

##### *Francis Salisbury house, "Salisbury Manor" (1705)*

An article in *Harper's Magazine* on "Old Catskill" by local historian Henry Brace recorded an extensive description of this house, which was constructed in 1705 according to irons near the top of its façade.

The fire-places, though now disused, are huge caverns eight feet broad and three feet deep. The sides of these chimneys were once covered with square tiles of coarse Delft earthenware. These have fortunately been preserved, and a few months ago I had the pleasure of looking them over. Upon them are rudely painted, in blue, scenes taken from the Scriptures—the suicide of Judas, Pilate's washing of his hands, the cock that crew thrice. I failed to find among the collection a duplicate of the delightful tile which Mistress Maria Schuneman Van Vechten once showed me, whereon was drawn Lazarus coming out of his tomb. The restored and overjoyed man is waving over his head a small Dutch flag. (Brace 1880:820)

The tiles in this house, which still exists, were removed some time before November 1876, and their current whereabouts are unknown (Brace 1876). A tile featuring Lazarus was also part of the installation at the Dies house in Catskill (see above).

##### *Garret Van Bergen-Arent Vedder house (1729; ca. 1775)*

The Van Bergen-Vedder house is a brick dwelling originally constructed in 1729, according to dates inscribed in two locations on the exterior. The house has a gambrel roof, which was probably added at a date later on in the eighteenth century. In the 1920s it was noted that "[i]n the living-room to the right of the hall the fire-

place of the eighteenth century was faced with tiles" (Reynolds 1965:107). It is not known if the installation was extant at the time of Reynolds's survey, or if it remains in place today.

#### **Montgomery County, Amsterdam**

##### *William Johnson house, "Fort Johnson" (1749)*

Fort Johnson was constructed for William Johnson in 1749. Archaeological excavations conducted in June 1976 recovered a fragment of a deift tile retaining an ox head corner design. This was recovered from a location outside of the north window of the northeast room, and so may have originated in that space (Lenig 1977:48). The present whereabouts of this fragment are unknown.

#### **Montgomery County, Florida**

##### *Enders house, Fort Hunter (ca. 1760)*

A portion of the extant house on this site, dating to the early nineteenth century, was constructed on a mid-eighteenth-century foundation for a one-room house measuring 4.9 by 5.5 m (16 by 18 ft) (Fisher 2003:23). Preliminary to stabilization of this foundation, archaeological excavations were conducted by the Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation, under the direction of Charles L. Fisher, in 1989–1990 (Fisher 2003). The published report identified one tile fragment in the artifact assemblage (Fisher 2003:24). Three additional fragments were identified in the artifact assemblage during this survey. Each fragment has a light buff body, and blue and white glaze. The subject matter is either biblical or landscape; none of the fragments are large enough to facilitate a definitive interpretation.

#### **Rensselaer County, Brunswick**

##### *Major Flores Bancker house (ca. 1785?)*

In 1870 it was believed that the "China [sic] tile, ornamenting the fire-place" in the Bancker house was "the only house in the County where this is to be found." This statement was in error; the installations at Crailo and the Vly house were still extant at that time. The dwelling was described as "a large one, with fire-places in each room . . . there are eight good sized rooms on the ground floor" (Child 1870:8).

Flores Bancker was an early resident of the town of Brunswick, and served as its first Town Supervisor from 1807–1811. A surveyor, Bancker is said to have received a tract of land in recognition of his service in the Revolution, and to have built the house described above on that parcel (Sylvester 1880:294, 302, 532,

535–536). Hiram Derrick occupied the house in 1870 (Child 1870:8). Its precise location has not been identified, but it is known to have been located in the west part of the town, possibly in the vicinity of Brunswick Center, where an atlas of Rensselaer County records the majority of members of the Derrick family as having lived in the 1870s (Sylvester 1880:534; Beers 1876:35). Because its exact location remains unknown, it has been impossible to verify whether or not this installation is still extant.

### Rensselaer County, East Greenbush

**Douw house, "Wolvenhoek," Douw's Point (ca. 1724)**  
 Salvage archaeology was conducted at Douw's Point by the New York State Historic Trust, directed by Paul R. Huey, in 1971. The site was the former location of Wolvenhoek, a ca. 1724 house and mid-eighteenth-century distillery owned by the Douw family. The house existed until some time after 1893, when it was leased to Rev. J. Wilbur Chapman, but was destroyed by 1911 (Peck 2006). An extensive description of the house was provided in a source from the latter date, which portrayed the fireplace in this manner: "The tiles in the chimney-jamb were laid in cement, made from powdered clamshells, displaying pictorial designs of scriptural nature, brought from Leuwarden" (Reynolds 1911:388). While it cannot be presently confirmed whether or not some of the tiles were in fact brought over from Leuwarden, this is manifestly not the case with at least one example in the artifact assemblage from the site. A single fragment of a Bristol-made polychrome bird tile (ca. 1760–1775), of the type also known

to have been used in the Cuyler house a short distance to the north, was found (Figure 8.47).

The tile component of the artifact assemblage consists of 25 fragments. Of these, 20 have blue and white glaze, and four have only white glaze. Four fragments retain ox head corners, while two retain spider corners. Eight examples retain portions of roundel borders. With the exception of the single polychrome example from Bristol, the collection appears to fall into two categories. The majority of the fragments appear to have been associated with landscape tiles, the subjects of which were set into small roundels. A small number of fragments may represent scriptural subjects, but none are large enough for positive identification. All are between 7 and 8 mm (0.28 and 0.31 in) in thickness, suggesting an eighteenth-century date for their production. Both of these tile types were manufactured beginning in latter part of the seventeenth century and continuing for some time afterward (Pluis 1998:367). They probably represent installations in two separate fireplaces, possibly dating to the original construction of the house. The Bristol tile may have been in a later addition to the house. A substantial gambrel-roofed addition is seen in a nineteenth-century view of the building (Figure 8.48).

### Rensselaer County, North Greenbush

**David DeFreest house, DeFreestville (ca. 1771)**

Although no tiles survive in this house at present, they were in situ until the middle of the twentieth century, at which time they were removed by the Jordan family, the last members of the original family to occupy the property. They are said to have been blue and white scriptural tiles, and to have been reinstalled in the new house occupied by the family in the twentieth century (Charles L. Fisher, personal communication 2005). The



Figure 8.47. Left: Tile fragment from Douw's Point (NYSOPRHP A.DP.1971.37).  
 Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

Right: Reconstructed example of the same type from the Bowne house, Flushing, New York.  
 Bowne House Historical Society.



Figure 8.48. Nineteenth-century painting of Wolvenhoek by an unidentified artist (current whereabouts unknown) (Ferris and McNally:1973).

David DeFreest house has been found through dendrochronological analysis to have been constructed ca. 1771 (Cook and Callahan 2004b).

#### *Van den Bergh house (ca. 1750)*

A single blue and white fragment of what is either a landscape or a Biblical tile was discovered during Phase 1B archaeology conducted adjacent to the ca. 1797 Cornelis Van den Bergh house on this site in the summer of 2008 by Hartgen Archeological Associates (HAA 2008). The presence of artifacts dating to ca. 1725–1765 in the same assemblage suggests that this tile was associated with an earlier house on the site, constructed for either Rutger or Cornelis M. van den Bergh at midcentury and surviving in the form of reused structural members in a late nineteenth-century addition to the ca. 1797 house (Van den Bergh 1822).

#### Rensselaer County, Rensselaer

##### *Hendrick Cuyler house, "Vly house" (ca. 1767)*

The Vly house was constructed by ca. 1767 for the Cuyler family, on a site adjacent to the east bank of the

Hudson River, and was the next neighbor south of the Crailo farm. The house was razed in 1926 (Reynolds 1965:77–78). It was photo-documented by Stephen Schreiber shortly before its destruction, and a photograph was taken of the tiled fireplace in the southwest parlor on the first floor (Figure 8.49). The insertion of a coal burner ca. 1840 altered this installation somewhat, but in other respects it appears to retain integrity to the eighteenth century.

The animal tiles in this installation were organized in a formal manner, arranged to enhance and reflect their architectural enframement. The two jambs consisted of three vertical columns of tiles depicting birds. Mammals, the “higher animals,” cover the lintel. The central tile of the lintel depicts an elephant. It is symmetrically flanked by matching tiles depicting monkeys. The ends of the lintel feature cut-down tiles depicting exotic landscapes.

These tiles were manufactured in Bristol, England, ca. 1760–1775 (Horne 1989:50). It is the only known installation of Bristol tiles of this type in the upper Hudson Valley. This installation and others, otherwise undocumented, were recorded by Helen W. Reynolds in 1929.

In the front rooms on the main floor pink tiles faced the fireplace opening. In the northwest room, second floor, the tiles were decorated with flowers and birds in blue and green and yellow, while in the northeast bedroom the design on the tiles was a bunch of grapes in blue on white. All of these interior decorations were saved by the last owner, Miss Katherine Van Rensselaer Arnold of Albany, when the house was torn down. (Reynolds 1965:78)

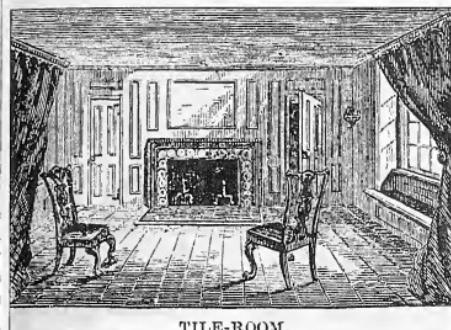
From this description, it appears likely that the “pink” tiles in the southwest and northwest rooms were all of Bristol manufacture. The description of those in the northwest room of the second floor, probably the best chamber, were likely also made in Bristol, and match the subject and glaze colors used in the tile of this type recovered from the Douw's Point site, as well as at the John Bowne house in Flushing, Queens, and the Samuel Schuyler house (Figure 8.47). Tiles depicting bunches of grapes in blue and white glazes are also known to have been manufactured in Bristol, ca. 1750–1770 (Horne 1989:68). The present whereabouts of the materials salvaged from the Vly house is unknown.

#### *Hendrick Van Rensselaer house, “Crailo” (1707; ca. 1762)*

Crailo, home of the branch of the Van Rensselaer family that owned the lower manor or Claverack district, has been recently dendrodated to 1707. A two-story wing was constructed in 1762, according to a date and initials inscribed on a brick adjacent to the door. On the second floor of the ca. 1762 wing of this house was a



Figure 8.49. Photograph by Stephen Schreiber ca. 1925 of the mantel in the southwest room of the first floor of the Vly house. Author's Collection.



TILE-ROOM.

**Figure 8.50.** Engraved view ca. 1875 depicting the east wall of the “tile room” in Crailo (Callender ca. 1875).

room that until ca. 1875 was known as the “tile room,” presumably because of the presence of scriptural tiles in the fireplace surround. It was described and illustrated shortly after its removal (Figure 8.50).

On [the second] . . . floor in the new wing, is the tile-room, so called on account of the tiles that formerly surrounded the fireplace. They are of a dull purple color, and in a good state of preservation, each of them containing some Scriptural illustration. One of them is intended to delineate the three unclean spirits, like frogs, as seen in the Apocalyptic vision, coming out of the mouth of the dragon. Another represents the flight of Joseph into Egypt, and another the miracle of Christ turning water into wine. (Callender ca. 1875:9–10)

A later source described them as “forty or fifty curious tiles, representing Scripture scenes” (Howell and Tenney 1886:674). Nine examples from this set of tiles were given to the Albany Institute of History & Art in 1940 (Figure 8.51). These tiles are of the same type as the example from the Nicoll house in Bethlehem, and are known from several other sites in the region.

Archaeology conducted under the direction of Paul R. Huey, Lois M. Feister, and Joseph E. McEvoy of the Bureau of Historic Sites in 1974 recovered two groups of associated tile fragments in a trench cut through Riverside Avenue, close to the house. Both groups appear to date to ca. 1625–1660; one has a dog as its central motif, and the other retains an ox head corner, both in blue and white glaze. They probably represent a single tile type (Huey, et al. 1977:28–30). A house was constructed on or near the site of Crailo by ca. 1649; these



**Figure 8.51.** One of nine tiles from the “tile room” at Crailo donated to the Albany Institute of History & Art (AIHA x1940.723.29b). Albany Institute of History & Art.

titles may have been used in that building. They match tile fragments found in Cellar 2 at the Schuyler Flatts (Figure 8.34).

Subsequent excavations in 1985, 1988, and 1990 recovered four additional fragments. One belongs to the series of scriptural tiles described above, which probably were installed in the house in 1762. It was found at some distance to the east of the house. Two retain blue and white glaze, one with a fragment of a roundel border. The fourth retains only a small area of white glaze on its surface. None of these fragments is large enough to positively identify.

### Rensselaer County, Schaghticoke

#### *Knickerbocker house (ca. 1770)*

Although no tiles remain at this house, a nineteenth-century source indicates that tiles were once installed in the dining room, located in the northwest corner of the first floor.

In the olden time the dining-room contained the historic fireplace, with its tiles front and sides representing the scenes and events of Bible history—the lives of the apostles and martyrs in blue figures on a white ground, the bearing of the cross, the crucifixion, and resurrection, with all the attendant incidents of sorrow and sadness. These crude delineations were well calculated to impress the great truths of the Bible upon the minds of those who gathered around the glowing embers during the long winter evenings—more forcibly, perhaps, than years of reading and patient study of the sacred text itself. (Viele 1876:36)

Although this source suggests the tiles had been removed by 1876, a county history from 1880 states that "Beautiful specimens of Dutch tiles adorn the mantels above the old fireplaces" (Sylvester 1880:452). This is possibly an indication that there were additional installations at the house, which remained in place at that time.

### Rensselaer County, Schodack

#### *Daniel Schermerhorn house, Schodack Landing*

One tile fragment was recovered during work in the north basement of the Schermerhorn house in 1979. A second fragment was recovered ca. 1992 in a trench excavated near the house. Both were given by the homeowner, Lew Rubenstein, to the New York State Office of Parks, Recreation and Historic Preservation. They are blue and white tiles having landscape subjects with roundel borders and spider head corners. They match the landscape tiles found at Douw's Point, and like them, could have been manufactured any time after 1650. Their thickness (7 mm or 0.28 in) indicates a probable eighteenth-century date of manufacture.

### Schenectady County, Niskayuna

#### *Timersen house (ca. 1750)*

This house, also known as the "Tymeson house," was photographically recorded by the Historic American Buildings Survey in the late 1930s or early 1940s (Historic American Buildings Survey, HABS-NY, 47-Nisk, 2). Two blue and white fragments from a single land- or waterscape tile, the image set within a small roundel border, were recovered at the site of this house by Bobby Brustle in the late 1970s. This house was located in the vicinity of Lock 7 of the Barge Canal, on River Road in Niskayuna, and was razed at an unknown date after 1940. The tiles appear to be of the same type as those found at the Schermerhorn house in Schodack, and at Douw's Point.

### Schenectady County, Schenectady

#### *Swits house (ca. 1780?)*

Two whole tiles from the Swits house, on Front Street opposite Church Street in Schenectady, are in the collections of the Schenectady County Historical Society. They entered the collection at an unknown date, but are individually set within late-nineteenth-century wood frames. Both tiles have blue and white glaze and feature scriptural scenes. One depicts St. Mark along with his attribute the lion, in an interior scene, writing his gospel (Figure 8.52). The second depicts a scene from the gospel of Matthew, chapter 27. Both tiles feature ox head corners and scriptural citations within the roundel



Figure 8.52. Scriptural tile from the Swits house, Schenectady, New York (SCHS 931.4b).

Courtesy of the Schenectady County Historical Society.

borders. They were likely manufactured in Utrecht in the middle of the eighteenth century (Pluis 1994:412).

#### *Abraham Yates house (1727)*

The Abraham Yates house is located at 109 Union Street in the Stockade district of Schenectady. It has recently been dendrodated to 1727.

Archeological excavations undertaken during the years 2003–2008 by staff and students of the Community Archeology program of Schenectady County Community College have recovered a total of 15 tile fragments or mending groups of fragments. All but one have blue and white glaze and two examples retain ox head corners. One example has purple and white glaze. Seven fragments retain portions of a roundel frame, and three have identifiable landscape subjects; it is likely that the remaining unidentified fragments come from similar tiles. The thickness of this collection of fragments ranges between 7.5 and 8.2 mm (0.30 and 0.32 in). No examples retaining whole corner motifs have been recovered from this site, but it appears that they have Utrecht-type corners and were made in the early eighteenth century.

### Schenectady County, Scotia

#### *Glen-Sanders house (1713, 1771)*

A single tile survives on site, which is believed by the current owner to have been recovered from the attic (Figure 8.53). It is a scriptural tile; its production probably dates to ca. 1750–1770 in Utrecht, and so it was likely associated with the construction of substantial additions to the building recently dendrodated to 1771 (Cook and Callahan 2004b).



**Figure 8.53.** Tile from the Glen-Sanders mansion, Scotia, New York (GS001).  
Courtesy of Angelo Mazzone.



**Figure 8.54.** Example of tile from the Bouck house, Schoharie, New York.  
From the Collection of the Old Stone Fort Museum, Schoharie, New York.

## Schoharie County, Schoharie

### *John Bouck house (ca. 1800)*

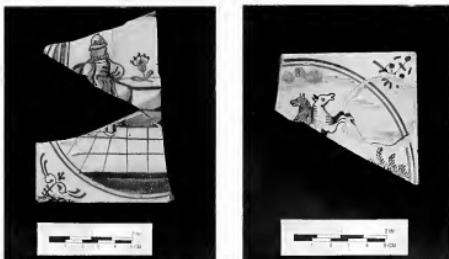
Soon after the construction of the Schoharie Court house, John Bouck constructed "a first-class country residence . . . Within it was a tile fireplace that now graces the Frey mansion near Canajoharie, and which was purchased in Albany at a great cost, and was the only one of the kind in this part of the country." The house was long occupied by John Gebhard, Jr. (Roscoe 1882). When it was razed in 1877, the tiles in the fireplace surround were removed and installed in the Frey house at Palatine Bridge, which had been constructed in 1807. A painting by George Willoughby Maynard (1843–1923) exhibited in 1886 entitled *The Committee of Safety* recreated an imagined scene in the Frey house, showing the tiled fireplace in the background (*Bicentennial Loan Exhibition* 1886:119). The reinstallation has been described by those who have seen it recently as incorporating a large number of tiles (Norman Rice, personal communication 2008).

Two of the tiles from the Bouck house are now in the collections of the Schoharie County Historical Society. They are blue and white landscape tile, the scenes set in roundels and with ox head corners (Figure 8.54). They may have been manufactured in Utrecht in the second half of the eighteenth century.

## Ulster County, Kingston

### *Matthewis Persen house (ca. 1735)*

Archaeological excavations conducted in association with the restoration of the Persen house, a dwelling which possibly incorporates a structure built in the 1670s, identified eight fragments of what are probably



**Figure 8.55.** Fragments from the Persen house, Kingston, New York (Ulster County Records Center P.12.132.1 and P.14.18.1).  
Courtesy of Brian Cunningham, Administrative Manager of Buildings and Grounds, Ulster County Department of Public Works, Kingston, New York.

landscape tiles, constituting perhaps as few as four different designs (Diamond 2004:4, 99) (Figure 8.55). These were interpreted as having been associated with Phase 3 of the construction of the house, or ca. 1735 (Diamond 2004:99). Their two corner types have, however, been identified by Pluis as having been made in Rotterdam during the periods 1780–1830 and 1820–1850 (Pluis 1998:552). An additional group of three fragments, mending to form approximately half of a landscape tile with ox head corners and roundel frame, is similar to examples at the Swits house in Schenectady, the Van Bergen house in Coxsackie, and the Bouck house in Schoharie (Figure 8.56).

*Wessel Wesselse Ten Broeck house,  
"Senate house" (ca. 1676; 1778)*  
Supposed by some to have been constructed as early as

1676, the Ten Broeck house was certainly extant by 1777 when it was burned by the British (Hine 1994:86). It is probable that the three tile fragments recovered during archaeological investigations under the direction of Lois M. Feister of the Bureau of Historic Sites in 1975, 1988, and 1992 at this site were deposited at that time (Feister and Sopko 2003). Two of these are small fragments of blue and white glazed tile, one possibly retaining a portion of a spider corner. The third retains a portion of a yellow-glazed design outlined in black, on a white background. The fragment is too small to definitively identify, but it may represent a portion of a tile with a

floral or faunal subject (Figure 8.57). A remote possibility exists that it is a German-made tile from the period ca. 1770 (Van Lemmen 1997:136). It was discovered near the Loughran house site in a nineteenth-century context, and so may have been associated with that house (Feister and Sopko 2003:83). It may, in fact, date to the later part of the nineteenth century.

In the mid-twentieth century the northern-most room on the first floor was restored and modern delft tile were installed around its fireplace (Waite and Huey 1971:48).



**Figure 8.56.** Reassembled tile fragments recovered during utilities work at the Persen house, Kingston, New York (Ulster County Records Center Persen 001a-c).

Courtesy of Brian Cunningham, Administrative Manager of Buildings and Grounds, Ulster County Department of Public Works, Kingston, New York.



**Figure 8.57.** Fragment of a tile with yellow figural motif outlined in black, from the Senate house, Kingston (NYSOPRHP A.SH.1975.150).

Courtesy Archeology Unit, Bureau of Historic Sites, New York State Office of Parks, Recreation and Historic Preservation.

## DISCUSSION

### The Popularity of Scripture Tiles

Given the near-complete removal of jambless fireplaces and their replacement by those of the English type by the first decades of the nineteenth century and the alteration of early jambed fireplaces with Rumford-type fireboxes beginning in the last quarter of that century, it is not surprising that narratives and descriptions from the late eighteenth century chiefly refer to installations associated with English-type fireplaces. Thus, the types of tile suites utilized in the decoration of English-type fireplace surrounds constructed during the middle decades of the eighteenth century are overwhelmingly represented in the historical record. These newer fireplaces were most often fitted with contemporary tiles, and the record of earlier tiles used in the home was largely erased.

A dramatic expansion in the region's population during the middle decades of the eighteenth century was largely caused by an influx of English troops to the region during the French and Indian War, resulting also in an increase in local wealth from provisioning. During the period 1738–1742, more than 83 percent of the residents of Albany County (then encompassing all of the study area) were of Dutch ethnicity; 20 years later that figure dropped to 42.5 percent while the English population rose to almost 56 percent (Hinshelwood 1981:138–139). An increased connection to New York (and thus international trade), which resulted from the presence of the English soldiers, contributed to an increase in the availability and consumption of fine commodities in the upper Hudson Valley, including chimney dressings.

As a result of these historical forces, the types of tile that were popular during the middle decades of the eighteenth century—scriptural or Bible tiles—have been identified as the most popular type of tile used in New York, and particularly in the upper Hudson Valley (Cornelius 1925:103). Although it was clearly not the case in the preceding era, both the archaeological and the historical record confirm that during the period

Table 8.2. Identifiable Subjects of Tiles by Site.

Name of Site	Single Human Figures	Animal	Vase	Children's Games	"Elegant Pairs"	"Shepherd"	Marble	Landscape	Scriptural	"Bastende Histories"	Quadrate	All English	All	Geometric	White	
<b>Albany County</b>																
J. Bogert						x										
V. J. Douw						x										
H. Holland/ Cherry Hill						x	x	x				x?				
J. Lansing						x	x	x								
P. Quackenbush	x					x										
Schuyler						x										
P. Schuyler (Pastures)						x										
P. P. Schuyler					x	x	x									
Stevenson																
J. Van Rensselaer				x	x	x	x	x				x				
102-11 State						x										
32 Howard			x									x?				
City Wall												x	x			
DASNY						x	x	x								
Fort Orange	x	x	x													
James St. Fill						x										
Maiden Lane						x										
Picotte-DEC						x										
State Street Blockhouse						x	x	x	x							
SUJCF						x	x	x	x	x	x					
R. Nicoll											x					
D. P. Winne										x						
P. Winne									x							
A. Coeymans												x				
W. Van Schaick									x							
A. Van Cuyler/ Schuyler		x	x					x								
Freeman											x					

continued on next page

Table 8.2. Identifiable Subjects of Tiles by Site (cont.).

Name of Site	Single Human Figures	Animal	Vase	Children's Games	"Elegant Pairs"	"Shepherd"	"Shepherd"	Marble	Landscape	Scriptural	"Bastetide Histories"	Quadrature	All English	Geometric	White	
<b>Albany County</b>																
J. Bay					x					x						
J. R. Van Reemsdael		x								x						x
Clermont																
Van Allen								x	x	x						
D. Van Schaack								x	x	x						
Wendover								x	x	x						
<b>Greene County</b>																
Dies								x								
P. Van Bergen								x								
F. Salisbury								x								
<b>Rensselaer County</b>																
Douw's Point							x	x	x	x						
D. DeFrieest							x		x	x						
H. Cuyler		x								x						
Craijo		x							x	x						
Knickerbocker							x		x	x						
D. Schenckenhorn							x									
<b>Schenectady County</b>																
Timerson								x		x						
Swifts										x						
Yales										x						
Glen Sanders										x						
<b>Schoharie County</b>																
J. Bouck										x						
<b>Ulster County</b>																
M. Persson										x						

1720–1765, suites of tile with scriptural themes were the most popular choice. Of 48 sites that have tiles with identifiable subject matter, 28 (58.3 percent) have scriptural tiles of some form (Table 8.2). Dr. Alexander Hamilton, visiting Albany in 1744, remarked that the locals “affect pictures much, particularly scripture history, with which they adorn their rooms” (Bridenbaugh 1948:72). Peter Kalm, traveling in the region at the end of the same decade, noted that houses in New York “were quite covered with all sorts of drawings and pictures in small frames.” (Kalm 1772:I:195). Tiles with scriptural themes were a logical extension of the predilection for figural representations noted by these two travelers.

Scripture tiles were popular throughout the American colonies and in other parts of the world during the mid-eighteenth century. George Washington had a “Dutch-tiled chimney-piece in the best room, covered with rude pictures of Scriptural scenes.” (Lossing 1870:34). A reference to their use in Russia, where their value was described as facilitating learning “at . . . mother’s knees, lessons of truth and love and mercy” begins to indicate the international scope of their attraction (Sala 1858:279).

The frequency with which superstitious beliefs are encountered in association with fireplaces may be an indication of an alternative function for tiles with biblical themes. The anxiety that inspired deposits of magical talismans in the vicinity of chimneys and doors was fueled by an atavistic belief that evil could enter through unpoliced openings in the home. Examples of deposits under hearthstones and at doors are known in the region into the twentieth century and include broken earthenware, coins, and horseshoes. It is possible that the subject matter of the tiles was accorded some protective meaning.

## English Tiles

The preponderance of the use of blue and white or purple and white tiles depicting scriptural scenes also may have been due to the limited local retail outlets for tiles in that period. Robert Sanders may have been responsible for vending the majority of tiles distributed from Albany during the middle decades of the eighteenth century. Perhaps not coincidentally, in the decade between the death of Sanders (in 1765) and the beginning of the Revolution, Bristol- and Liverpool-made tiles first make their appearance in the region. The large influx of English soldiers, encamped in the vicinity of Albany in the 1750s and 1760s during the French and Indian War, may have been responsible for an increased demand for tiles of British manufacture, as many of these soldiers married local women and settled in the

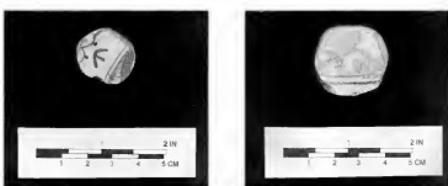
region after the close of hostilities.

Examples of Bristol-made tile are known from the Vly house in Rensselaer and Douw’s Point in nearby East Greenbush, both installations dating to the 1760s. Polychrome bird tiles were used at both sites, while purple and white animal tiles were incorporated into one of the fireplace surrounds at the Vly house. Use of the polychrome bird tiles in New York State is also documented by whole examples surviving from the Samuel Schuyler house (said to have been in New York City), and the John Bowe house, in Flushing, Queens. The latter example was likely installed ca. 1763 during renovations to the house (Wheeler 2007:226). English-made tiles were also utilized at the David Van Schaack house in Kinderhook (1774), and an example was found at the City Wall site, part of the excavations undertaken by the New York State Museum under the direction of Charles L. Fisher, in Albany.

## Additional Observed Features and Details

Three examples of tile reworked as gaming pieces, probably used in association with card playing, were identified by the survey. Two of these laterally cycled artifacts came from the DASNY excavations (E5-0057 and E5-0993, Figure 8.58), and an additional example was recovered at the KeyCorp site (A-A87.5.313.23). Examples of the utilization of other ceramic types for this purpose are known from Albany and New York City contexts. Each of the tile fragments had its edges intentionally ground smooth and rounded in order to create a roughly circular chip between 2 and 3 cm (0.79 and 1.2 in) in diameter. The KeyCorp example is slightly smaller, and more irregularly worked. The reuse of these fragments probably reflects a continuing appreciation for their colorful glazed surfaces and durability.

An alternate fate of tiles as they went out of fashion is indicated by examples from several sites that were part of the survey. At Cherry Hill, the Coeymans house, the



**Figure 8.58.** Tile fragments reworked for use as gaming pieces from the DASNY site (AIHA DASNY Collection E5-0057 and E5-0993).

Albany Institute of History & Art.



**Figure 8.59.** Back of one of the tiles excavated at the Schuyler Flatts site (Brusil Collection C2-085). Courtesy of Bobby Brusil.

Persen house, and the SUCF site, a number of examples of tile that had been covered with either plaster or paint while still installed have been identified. This would seem to indicate a widespread fashion, which was in favor of a simpler appearance of the fireplace surround. This likely occurred during the first half of the nineteenth century, after the close of the period during which tiles were being offered for sale.

Several examples of tile in the survey bear markings on their back faces. Three of the tiles at the Schenectady County Historical Society, which are supposed to have come from the Schuyler house on State Street in Albany, have ink or lampblack numbers handwritten on their backs. At least two of these tiles are late-nineteenth century in date and are unlikely to have come from the house. The numbers probably represent catalog numbers. A single tile excavated at the Schuyler Flatts site, which dates to ca. 1625–1650, retains an unidentified cipher on its back face (Figure 8.59). The purpose of this figure, possibly a monogram reading IVB, is unknown, but it may represent the initials of the artist who painted the tile, the manufacturer, or a merchant.

### Geographical and Ethnic Use Distribution

It is perhaps to be expected that the frequency of both historical references to and physical evidence of tile installations decreases as one travels from the densely settled areas of the region into the surrounding rural districts. For example, only one site in Schoharie County and two in Montgomery County have been identified. However, of the 59 sites included in this sur-

vey, 33, or almost 56 percent, are located in rural areas where the principal business was agriculture. The greatest concentrations for both urban and rural tile installation sites are in close proximity to water and land travel routes. Sites located fairly close to the shores of the Hudson River predominate. It is likely that merchants in the city of Albany provided consumers in the entire region with tiles during the full period of their popular use (ca. 1625–1800). This is suggested by the greater variety of types used in the city, and by the fact that for any given period, some of the most popular types of tile can be found throughout the region on sites that lack any direct connection. The sample set from Kingston largely consists of tile types of the most popular forms available during the middle decades of the eighteenth century, and so is undistinguishable from the Albany subset except that fewer types are represented. Consumers in Kingston may have obtained their tiles from merchants in that city, or may have received a portion of shipments headed for Albany.

While the reasons why houses constructed for affluent families in the second half of the eighteenth century may not have had tile installations have been presented, it remains to explain the absence of tiles from houses and sites which might otherwise be expected to have used them. Among these are the Mabee house, Rotterdam (1705 and later), and the Bronx houses, Coxsackie (ca. 1710? and 1737). Archaeology has been conducted at both house sites, and no tile fragments have been found. Similarly, no tile fragments have been encountered during archaeological work at several excavated sites in New Paltz in Ulster County, and there is no record of the use of tile in any of the houses in the village, several of which have been dendrodated to the first two decades of the eighteenth century. All of these houses share stone masonry construction, and all were constructed for Huguenot families. At this time it can only be speculated that religious, cultural, and ethnic affiliations may have affected aesthetic preferences when it came to the choice of whether or not to use tiles. This is a line of inquiry that deserves further study.

Information pertaining to house type is preserved or available for 41 of the sites in the survey. Table 8.3 presents this information together with location type (urban/village or rural) and cultural affiliation of the occupants. Until ca. 1730, all known tile installations occurred in houses of distinctly New World Dutch type. That is, houses whose structure comprised a frame of parallel bents and whose room arrangement was linear. The bent framing system was used for the majority of the region's domestic structures until the middle decades of the eighteenth century and to a lesser degree until the middle of the nineteenth century. However, beginning in ca. 1730 and continuing for the next centu-

ry, houses of mixed form were also constructed in the region. These frequently made use of a center passage plan while retaining the Dutch bent frame structural system. By the late 1740s, houses constructed with hewn box frames and central passage plans, typically associated with Anglo-American settlement, were being built in the region. These trends are directly reflected in Table 8.3.

It is perhaps surprising that the cultural affiliation of those who made use of tile in the upper Hudson Valley changed little over the period ca. 1625–1800. Despite the fact that tin-glazed tiles became popular in England by the seventeenth century, and that evidence suggests a substantial number of tiles imported to the region during the period ca. 1760–1775 were English-made, 75.6 percent of the identifiable consumers of tiles recorded in this survey were of Dutch extraction, and an additional 12.2 percent were of mixed Dutch extraction. This pattern changed little during the period ca. 1625–1800. This figure is an estimate based upon family patronymics for those sites for which we have data pertaining to house form only, but it is likely representative. What this suggests is that even though tiles may have been being shipped to the colonies as part of the international marketing of this commodity, in the upper Hudson Valley they may have been used to strengthen Dutch cultural affinity. The conservative, isolationist nature of the region was noted repeatedly by eighteenth-century travelers, and Dutch traditions attending religious rituals and festivals continued to be practiced into the nineteenth century. The razing of the Dutch Reformed Church at the intersection of State Street and Broadway, Albany, in 1806 was seen as a symbolic end to the Dutch hegemony. It is thus possible that the prominent use of Dutch-made tin-glazed tiles had a socio-political dimension in the seventeenth and eighteenth centuries.

## CONCLUSION

Few seventeenth-century sites survive to document the aesthetic preferences of the early European settlers. However, tiles recovered from just four sites: Schuyler Flatts, Fort Orange, Crailo, and the Quackenbush house, are sufficient to indicate the contemporaneous local availability of at least several different types of tiles during the second quarter of the seventeenth century. These included tiles with animal subjects (two types), scenes from daily life, and floral subjects. Available data from sites dating to the period ca. 1675–1725 indicate a change in the available types of tile in the local market, perhaps affected by decreasing direct trade with the Netherlands after the capitulation of 1674. New subject types including faux marble, children's games, landscapes, and "ele-

gant pairs" were offered.

Tiles from the Netherlands, chiefly from Utrecht, but with examples from Makkum, Rotterdam, and other locations, predominated during the period ca. 1700–1750. Up until this period, all of the known examples (excepting the faux marble tiles) were glazed blue and white; it is at this time that purple and white glazed tiles, and tiles with blue and powdered purple glaze, were apparently first offered to consumers.

The period ca. 1740–1765, roughly corresponding to the merchant activities of Robert Sanders in Albany, was a period of expanded use but contracted availability of types of tin-glazed tiles. Examples from several sites were all scriptural tiles manufactured in Utrecht, and possibly had a common origin with Sanders. Landscape tiles of similar type were also utilized, but in smaller numbers.

Only after ca. 1760 did tiles from England make their first appearance in the area. During the period 1760–1775, English tiles from Bristol and Liverpool were installed in houses in Albany, Rensselaer, East Greenbush, and Kinderhook. The introduction of British-made tiles corresponds to the first known use of polychrome tiles in the region. Access to these types of tiles was necessarily curtailed during the Revolutionary War period, and the few documented tile installations dating from the late eighteenth or early nineteenth century appear to have been composed of blue or purple and white Dutch-manufactured tiles.

It is likely that the restricted options offered to consumers in the upper Hudson Valley were a direct reflection of the region's status and location. The decreasing number of tile types apparently offered to local consumers during the progress of the eighteenth century may have been a direct reflection of the diminishing status of the region after the assumption of power by the British, and the decrease in direct water traffic between Albany and the Netherlands after the capitulation. Even with continued trade between New York and the Netherlands, Albany's status as an inland port more than 150 miles from the metropolis meant that it received a narrower selection of goods. A limited examination of several collections generated from New York City contexts indicates the availability of a broader selection of tile types from at least the end of the seventeenth century and extending throughout the eighteenth century.

The more expensive types of polychrome tile do not appear to have been offered to the region's residents, as they were not used in the homes of even the wealthiest families in the area. Perhaps Albany's merchants responded conservatively when choosing to offer luxury items such as tin-glazed tile in the late seventeenth and eighteenth centuries. By diminishing the types

**Table 8.3.** Identifiable House Types, Location Types, and Cultural Affiliations of Occupants, Arranged Chronologically.

Name of House	Date of Construction	House Type			Location		Cultural Affiliation		
		E	D	M	U	R	E	D	M
P. Quackenbush	ca. 1630		X			X			X
Ft. Orange (Labadie)	ca. 1640		X		X				X
Ft. Orange 2	ca. 1640		X		X				X
Ft. Orange 3	ca. 1640		X		X				X
A. Van Curler	1643		X				X		X
V. J. Douw/Alms	ca. 1650/1686		X		X				X
P. P. Schuyler	1667		X		X				X
Van Rensselaer	1668		X			X			X
Salisbury Manor	1705		X			X		X	
Crailo (first house)	1707		X			X			X
Lansing	1710		X		X				X
Glen-Sanders (earliest part of house)	1713		X			X		X	
P. Winne	1723		X			X			X
Wolvenhoek (Douw's Point)	ca. 1724		X			X			X
Yates	1727		X		X			X	
G. Van Bergen	1729/ ca. 1775		X			X			X
Coeymans	ca. 1730			X		X			X
Nicoll-Sill	1736/1780			X		X			X
Van Alen	1737		X			X			X
Timerson	ca. 1740		X			X			X
Ft. Johnson	1749	X				X		X	
Van den Bergh	ca. 1750		X			X			X
D. P. Winne	1751		X			X			X
Swits	1760?			X	X				X
Schuyler (Pastures)	1761	X				X			X
W. Van Schaick	ca. 1762			X		X			X
Crailo (second house)	ca. 1762			X		X			X
Ten Broeck Bouwerie	1762			X		X			X
P. Van Bergen	1764?		X			X			X
Wolvenhoek (second phase)	1760s			X		X			X
Schermerhorn	1760s			X		X			X
Cuyler (Vly) house	ca. 1767	X				X			X
Knickerbocker	ca. 1770	X				X			X
D. DeFreest	1771			X		X			X
Glen-Sanders (second phase)	1771			X		X		X	
D. Van Schaack	1774	X				X			X
Stevenson	1789	X				X			X
P. Van Rensselaer	1787	X				X			X
J. Rutsen Van Rensselaer	ca. 1800	X				X			X
Freeman	ca. 1800				X		X		X
Bouck	1800				X		X		X

E= English, D=Dutch, M=Mixed or other; U=Urban or village, R=Rural

available in the local market, they would have limited the risk of stocking unpopular designs. By choosing to offer only tiles of middling cost, they reduced their financial exposure. Among those tiles surveyed, fewer than 10 represent products that could be considered "seconds." This may also represent a mercantile strategy; the people of the upper Hudson Valley were under far less cultural pressure to acquire tiles than their Dutch counterparts. Merchants were required to offer an attractive product to prospective customers of this simple extravagance. Alternately, if the acquisition of tiles is admitted to have a socio-political dimension, it may have been particularly important for consumers to secure good examples of Dutch manufacture.

## ACKNOWLEDGMENTS

Thanks to Louise Basa, Adjunct Faculty member, Schenectady County Community College; Dan Beams, Curator, Old Stone Fort Museum, Schoharie; Erin Crissman, former Curator, Historic Cherry Hill; Mary Doebla, Manuscript Specialist, Historic Cherry Hill; Ellen Gamache, Albany Public Library; Ken Gray, Archival Processing Technician, Ulster County Records Center; Heidi Hill, Site Manager, Crailo State Historic Site; Paul R. Huey, Scientist (Archeology), Bureau of Historic Sites, Office of Parks, Recreation and Historic Preservation; Ron Kingsley, Instructor, Community Archaeology Program, Schenectady County Community College; Andrea Lain, Archaeology Collections Manager, New York State Museum; Joe McEvoy, Conservation Technician, Bureau of Historic Sites, OPRHP; Shelby A. Mattice, Museum Manager, The Bronx Museum, Greene County Historical Society; Helen McLallan, former curator of the Columbia County Historical Society; Doug McCombs, Curator of History, Albany Institute of History & Art; Ruth Piwonka, Historian of the Town and Village of Kinderhook; Ralph Rataul, New York State Museum; Michael Roets, Archeology Unit, Bureau of Historic Sites, OPRHP; Janny Venema, Associate Director, New Netherland Research Center, New York State Library; Kathryn Weller, Curator, Schenectady County Historical Society; Vic Work, Ulster County Department of Buildings and Grounds; and Ann S. Jacobs, Chester H. Bolen, and Clark H. Galloway of the Bethlehem Archaeology Laboratory.

Ken Barriklo, Roderick Blackburn, James W. Bradley, Bobby Brustle, Diana Carter, Donna Crego, Gerry de Seve, Al Deitz, Joe Diamond, Shirley Dunn, Lois Feister, Karen Fisher, Catherine Gatta, Leslie Gerhauser, Alaine Hohenberg, Howard J. Katz, Sylvia and Paul Lawler, Marieke Leeverink, Angelo Mazzone, Robin Michel,

Dave Moyer, John Overbeck, Brian Parker, Audrey and Stuart Peckner, Norman S. Rice, Stephen Ross, and Alvin Wanzer all assisted in substantive ways.

At Hartgen Archeological Associates, Amy Bennett, Justin D. DiVirgilio, Neni Isaac, Roberta S. Jeracka, Matt Kirk, and Jessica Reed all provided assistance. Robyn Battles accompanied me on many of the research trips and did most of the scanning for this project.

This paper was originally conceived during conversations with Chuck Fisher, and was planned as a project with him. We had advanced only as far as preliminary assessment of the collections at the New York State Museum at the time of his death.

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## Chapter 9

### STEWART DEAN: The Archaeology of a Pilot, Privateer, and Entrepreneur

Matthew Kirk

Upon the return of the sloop *Experiment* in 1787, Captain Stewart Dean (Figure 9.1) became just the second American merchant/sailor to successfully complete a trading mission to China. The captain, a Hudson River pilot and Revolutionary War privateer, became a hometown hero in Albany. Over the course of the next decade, Dean embarked on at least two additional expeditions to China, including ones from 1797 to 1798 (*Albany Gazette* 1798a) and 1800 to 1801 (*Alexandria Advertiser* 1801; *Commercial Advertiser* 1801). Recent excavations at the State University Construction Fund (SUCF) site in downtown Albany, New York, uncovered the remains of Dean's eighteenth-century house and several of his warehouses, his wooden-crib waterfront (Figure 9.2), and most importantly, his stone-lined well later filled with household trash and the contents of chamber pots. The well contained many items that Dean brought back with him from his Far East travels. Chinese imports such as tea, silk, and porcelain were in high demand at the time by many American households, and Captain Dean had unrivaled access to these goods. Today, Chinese goods are associated with cheap, poorly made products mass-marketed for the American consumer. At the time of Dean's travels, however, they were highly prized and, in comparison with European goods, well made. The archaeological record reveals how Dean incorporated this material culture into his household and documents how its significance changed over time. Although Dean was one of the first Americans to trade in China, many others soon followed. Dean's story and the associated archaeology can help us understand how other merchants, traders, and sailors of the time incorporated foreign material culture into their daily lives in America.

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can be gleaned from newspaper articles, census data, and even his own application for a veteran's pension, yet much concerning his life remains somewhat of a mystery. During the American Revolution, Dean settled on the Albany waterfront and eventually constructed an impressive array of docks and warehouses. He also spent much of his time at sea. Following the Revolution, with the opening of markets for American merchants, he traveled extensively aboard. By the turn of the nineteenth century, he refocused his career and retired from sea life.

The archaeology of Stewart Dean's property provides valuable insights into an important American seaman as his career evolved from a river pilot, to privateer, and eventually to entrepreneur. The archaeological data presented here were gathered from his waterfront property where he lived between 1776 and 1809. The evolution of his waterfront lot is evidenced in the construction of his

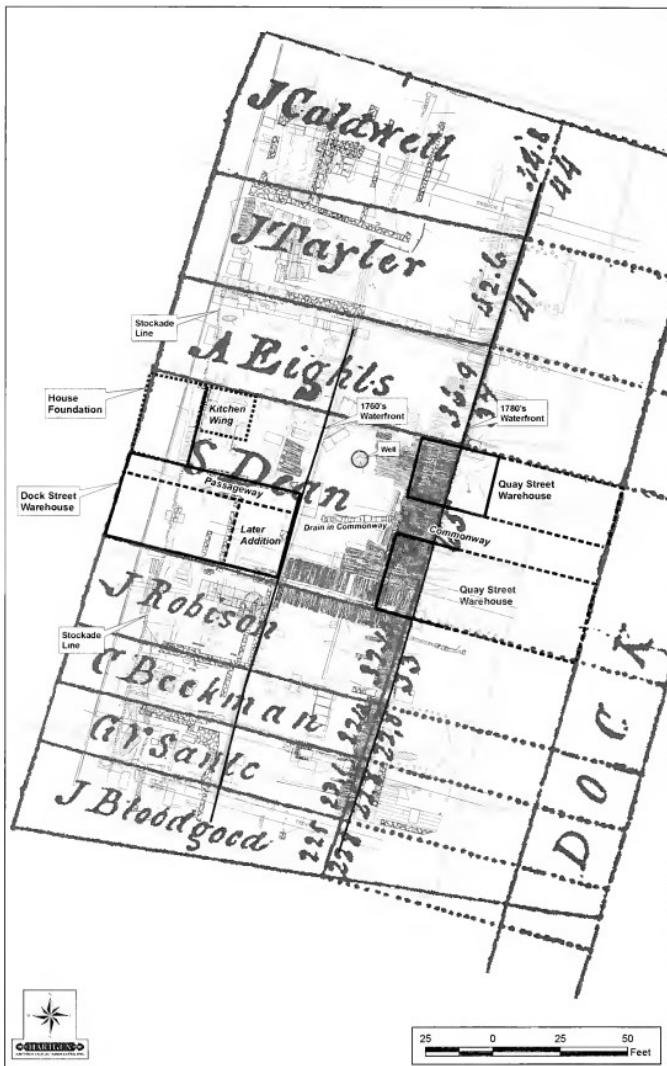


**Figure 9.1.** Portrait of Captain Stewart Dean as reinterpreted by contemporary artist L. F. Tantillo (also found in Tantillo 1996:57) from a small brooch pin circa 1780 (Wilgus 1942: Frontispiece).

Portrait of Stewart Dean, 1992. Acrylic on canvas. KeyBank Collection, Albany, New York.

## INTRODUCTION

Arguably, Stewart Dean can be credited with helping Americans gain access to one of the greatest economic markets of the modern age. Details about Captain Dean



**Figure 9.2.** Plan of the archaeological features as found at the SUCF site with Stewart Dean's house, storehouse, warehouses, and waterfront expansions highlighted. The plan is overlaid onto an historical landowner map that depicts the various lots and owners along the waterfront at (Winne 1793). Dock Street is to the left, the proposed dock along the waterfront is indicated to the right; the area along the dock later became known as Quay Street.

house, expanding wharves, and warehouses, all located in the archaeological excavations. These features reflect Dean's growing success and growth from a middling-class merchant to Albany's upper class. They also reveal how Dean diversified his economic interests to remain prosperous in a tumultuous and dynamic American market.

The large artifact assemblage from the waterfront lot also evidences how Dean utilized his material culture to distinguish himself from other Albany merchants and to later position himself among the cultural and social elite of the city. It is possible that some of the artifacts recovered from his property could have come from neighbors, friends, relatives, or other immediate family members. However, the evidence strongly points to Dean himself as the source for many of these items. The Chinese goods and other maritime and nautical artifacts suggest they derive directly from Dean. The majority of the assemblage discussed here also dates to the time when Dean ended his seafaring life and spent most, if not all, of his time at home in Albany (ca. 1802–1809). The chapter concludes with a discussion concerning the prevalence of porcelain in Albany households as explored through contemporary newspaper advertisements and estate inventories. These historical accounts provide a context for the artifacts associated with Dean and how the perceived value of the porcelain and other exotic items from the Far East changed through time, particularly as Dean climbed the social ladder.

## ARCHAEOLOGICAL AND HISTORICAL INVESTIGATIONS

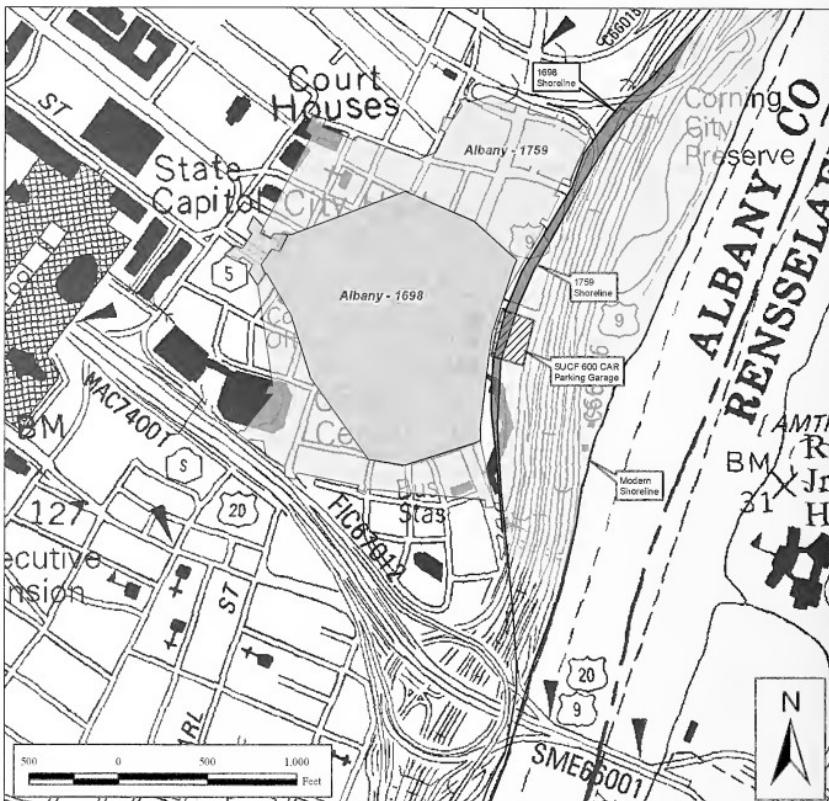
The archaeological investigation of Dean's waterfront lot began in 1998 with backhoe trenches on a parking lot just north of the former Delaware and Hudson (D&H) Railroad Headquarters in downtown Albany currently occupied by the State University of New York Systems Administration. The State University Construction Fund (SUCF) was planning a multi-story parking structure that could accommodate 600 vehicles at the site. Since the project utilized state funds, an archaeological survey was conducted to comply with the New York State Historic Preservation Act (Section 14.09). The study area included approximately 0.40 hectare (1 ac) of urban land between Dean Street (formerly Dock Street) and Water Street (formerly Quay Street) and Maiden Lane and Exchange Street (Figure 9.3). The site was formerly situated on the shoreline of the Hudson River now located over 0.4 km (0.25 mi) to the east due to years of accumulating fill and land reclamation efforts (Hartgen Archeological Associates, Inc. 2002).

The initial backhoe trenches uncovered the remains of wooden bulkheads, privies, foundations, and extensive artifact deposits. Subsequently, Hartgen Archeological Associates Inc. conducted a large-scale mitigation in the summer of 1999 at what became known as the SUCF site. The results of several months of intensive archaeological excavations were impressive. Due to the high water table, many artifacts and features that typically do not survive in the archaeological record were found in remarkable states of preservation. Among the more spectacular finds, archaeologists unearthed a succession of waterfront stockades dating from the King George's War (1740–1748) to the later French and Indian War (1754–1763). Later wooden-crib bulkheads and driven-wooden-pile wharves built in the 1760s, 1780s, and 1790s exposed at the site evidenced a concerted building effort by the city that allowed landowners to choose their own construction methods to suit their personal needs and budgets.

The waterfront developed quickly with mixed residential and commercial properties (such as stores, storehouses, shops, and boarding houses) and the allied infrastructure (drains, cisterns, wells, and privies). Ten privies of various sizes, shapes, and construction dating from the late eighteenth century to the mid and late nineteenth century were identified at the site.

Historical research on the site early in the archaeological study indicated that the waterfront development of the 1770s was spurred by a small cadre of wealthy landowners (Figure 9.2). Among these were James Caldwell, a self-made merchant credited with establishing Lake George Village (Barbagallo 2000; Wheeler 2002:5.25); sail maker and merchant Abraham Eights; John Tayler, a merchant, Indian commissioner, and politician [Colonial Albany History Project (CAP) Biography 1383; Wheeler 2002:5.10]; importer and real estate mogul William James; and merchants John Robison (CAP 422), James Bloodgood, and Gerrit Van Zandt, Jr. Stewart Dean, a merchant and ship captain, also purchased and developed property along the Albany waterfront.

The archaeological excavations focused more particularly on Stewart Dean's lot in the more central portion of the SUCF site. Captain Dean became renowned for his travels to Canton; however, many of the particulars of his life were left unrecorded, and much of what is known is based on local oral traditions (Carmer 1945). The archaeological data gathered from the SUCF excavations provide a more complete picture of Stewart Dean's life, both abroad and in Albany. This chapter brings together many different strands of archaeological evidence to shed new light onto Stewart Dean, a legend in Albany history.



**Figure 9.3.** Location of archaeological excavations at the State University Construction Fund (SUCF) site relative to the historical expansion of colonial Albany and its waterfront. This site is where Stewart Dean made his home between 1776 and 1809. Fort Frederick is located at the western end of the early town near the current State Capitol.

### DEAN'S EARLY LIFE

Stewart Dean—later an ardent supporter of the War for Independence—was born on July 4, 1748, in Somerset County, Maryland. Orphaned at a young age, he eventually was offered an apprenticeship by Henry Lowes, a wealthy tobacco plantation owner (Wilgus 1942:5). Lowes taught Dean the seafaring and navigational skills that would profit him later in his life. As a young man in his early 20s, Dean left Lowes and set out from Maryland. Although it is unclear how

or why, by 1769 Dean landed in Albany, New York. In short order, Dean immersed himself into the traditional Dutch cultural landscape of Albany by marrying Pieterize Bratt, the daughter of prominent residents Anthony Bratt and Marie van Alstyne, in May of 1773 (Wilgus 1942:9). Once established in the city, Captain Dean and his sloop *Beaver* regularly plied the waters of the Caribbean and the eastern seaboard of America (*The New-York Journal* 1772; *The New-York Gazette* 1773 and 1775; *Rivington's New-York Gazetteer* 1774; *Pennsylvania Gazette* 1775).

## HOME ON THE WATERFRONT

According to early records, Dean purchased a double lot along the Albany waterfront from the city on March 26, 1776 (Munsell 1865:275). Shortly afterward he built a comfortable middle-class house fronting on Dock Street, later renamed Dean Street in his honor (Munsell 1857:160). The structure survived relatively intact until the early twentieth century. As a result, later historical maps (Sanborn Map Company 1892), late-nineteenth-century photographs (Figure 9.4), and an early-nineteenth-century newspaper advertisement (*Albany Register* 1809), along with the archaeological remains, provide ample evidence of its arrangement.

The brick superstructure featured four bays measuring approximately 9.1 by 8.5 m (30 by 28 ft), with two

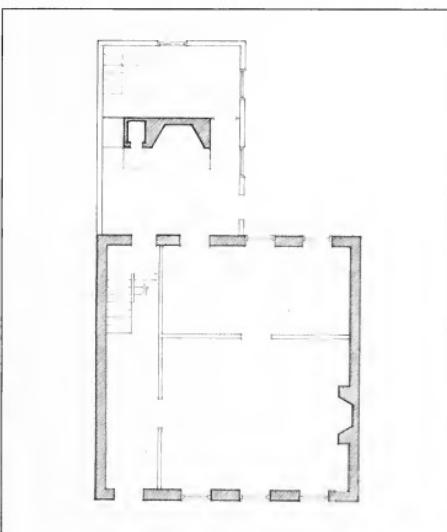
full stories. A third-floor attic and a gambrel roof topped the house, a style consistent with an English sense of taste rather than Dutch. A two-story kitchen wing was situated on the northeast corner of the main portion of the house (Figure 9.5). The smallish addition, approximately 4.5 by 6.7 m (15 by 22 ft), likely served as a kitchen and domestic space for the four slaves (Federal Census 1790). Although set off from the main part of the house, the addition was built contemporaneously (Walter Wheeler, personal communication, October 2008). No archaeological evidence of the kitchen wing survived; as a result, its arrangement in Figure 9.5 is based on analogy to similar structures from that time period.

The dry-laid stone foundation of Dean's house was composed of cut stone blocks and set upon a wooden footing system because it was built on newly made



**Figure 9.4.** Circa 1900 photograph of the modified storehouse built by Stewart Dean in the late eighteenth century, viewed southeast. Interestingly, Stewart Dean's dwelling house, built immediately to the north, is evidenced by the brick scar along the wall. The gambrel roof line of the house, which burned several years earlier, can be discerned. A 1794 advertisement in the Albany newspapers suggests the façade of the storehouse was painted yellow (*Albany Institute of History & Art n.d.; Albany Register 1794*) (AIHA Library, Morris Gerber Collection 1993.010.644).

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**Figure 9.5.** Conceptual plan of Stewart Dean's house on Dock Street around 1776, based in part on later historical maps, the archaeological record, and analogy with similar extant structures. The front of the house (bottom) faced Dock Street. The kitchen wing likely featured a large fireplace in the center. The main hall and staircase were likely on the north side of the house, opposite the fireplace on the south wall, as evidenced on the warehouse.

Illustration by Walter Wheeler.

land. The system consisted of two parallel wooden planks approximately 0.3 m (1 ft), 10.1 cm (4 in) thick and several feet in length set over horizontally placed large timber footers. Each footer measured between 35.5 and 45.7 cm (14 and 18 in) in diameter and 1.2 to 1.5 m (4 to 5 ft) in length. The eastern wall of the foundation was placed directly over the wooden posts of the former waterfront stockade, which, rather than being removed, were cut in place.

The construction style and attention to detail suggests Dean contracted with experienced builders who had extensive knowledge of construction in a made-land environment. The house stood as a clear deviation from the more traditional "Dutch" style houses that were still popular in the Albany area (Wheeler 2003), perhaps indicative of Dean's upbringing in Maryland or progressive ideas on aesthetics. Early in his time in Albany, Dean began the difficult task of navigating himself through the cultural intricacies of a city with a strong Dutch heritage that was slowly adopting English tastes and customs. With a modest investment, Dean established himself at the center of the Albany waterfront. In time he developed the lot with warehouses for himself and others, capitalizing on emerging opportunities in trade and commerce.

## THE AMERICAN REVOLUTION

Perhaps owing to his father-in-law's involvement in the Albany Committee of Correspondence, Stewart Dean immersed himself in the political and military intrigues associated with the American Revolution. During the war, Dean served intermittently as both a foot soldier and a privateer. Much of what is known about Dean's service comes from his own recollections of the war contained in his 1833 pension application. By this time, Dean's memory had dimmed and his hand was not steady enough to pen the application. He dictated his thoughts to his close friend Matthew Warner. A letter of support from an associate, William Patterson of Baltimore, was also appended to the application. Ironically, despite his service, the pension application was rejected since he did not serve long enough as a regular soldier (National Archives and Records Administration [NARA] Group 15, R.2.809).

Dean's brief land service began in January 1776 when he marched to Johnstown, New York, with Colonel Jacob Lansing and the first regiment of militia under the command of Captain Goesbeck. The militia successfully captured and disarmed loyalist Sir John Johnson and his group of Native American and Tory allies. Shortly after, Johnson was released by the Americans, eventually fleeing to Canada. Although Dean's first action of the

war consisted of a short foray, he found other ways to serve. In the spring, after the ice had broken from the Hudson River, he assumed command of the ship-of-war *Beaver*, prowling the waters of the West Indies to harass the British navy and procure necessary supplies for the colonists. In 1776, *Beaver*, along with the brig *Enterprise* commanded by Captain DeWeight, captured four British ships, including the *Earl of Errol* with six 4-pound cannons after a short but sharp skirmish. The *Earl of Errol*, laden with over \$100,000 worth of goods, eventually was hauled to Boston; the other vessels apparently were recaptured by the British (Maclay 1899:73; NARA Group 15, R.2.809). From there, Dean sailed to St. Martin to obtain supplies and find a place to hold the British prisoners he had taken. At the nearby Dutch island of St. Eustatius he met with the American merchant William Patterson, who later penned a letter of support for his military pension. Captain Dean convinced Patterson to assist in finding sugar and rum for his vessel. Shortly thereafter, Dean set sail for Newport, Rhode Island, to return to America with goods provided by Patterson (*Continental Journal* 1777; NARA Group 15, R.2.809).

Throughout the war Dean periodically captained *Beaver* with tours of the West Indies again in 1779 and 1781. These voyages met with some success, as he captured another British sloop in June 1779, although details of the battle are not clear (NARA Group 15, R.2.809; Maclay 1899:77; Wilgus 1942:19).

Back at home, local officials elected Dean to the influential Albany Committee of Correspondence in the early months of 1777. Apparently, his service on this committee prevented him from active military engagements early in that year as he retained a substitute to help repulse St. Leger's advances in the upper Mohawk Valley. Later in 1777, Dean mustered in with a company of artillery on a short excursion. In his pension application, Dean recalled two other short marches he undertook in 1778 to Schenectady and in 1779 to Schoharie with General Abraham Ten Broeck (NARA Group 15, R.2.809; Wilgus 1942:13).

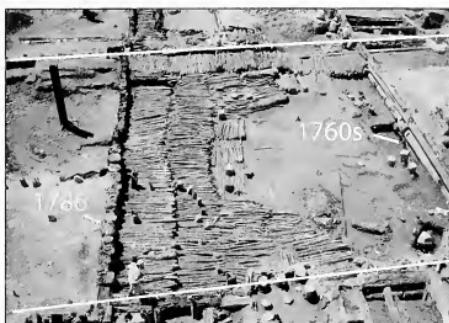
Perhaps in recognition of his military service, Dean was subsequently elected to the Albany County Commissioners for Detecting and Defeating Conspiracies in 1781. However, in 1782 Dean briefly moved to Philadelphia where he supervised the construction and fitting of the warship *Nimrod*. Once completed, the Continental Congress commissioned Dean to privateer in the West Indies (Wilgus 1942:15). *Nimrod* did not enjoy great successes in the West Indies, as the British privateer *Regulator* quickly captured this schooner and two other American vessels following an engagement near French-controlled St. Christopher (St. Kitts) in which Dean was badly wounded. Afterward

the British towed the schooner *Nimrod* to Antigua, where Dean was detained for 20 days. Through luck, political deftness and his own powers of persuasion, Dean secured the release of his ship and crew from British Admiral Crosby and the English governor of Antigua with assistance from the French governor at St. Christopher (*Connecticut Courant* 1782; NARA Group 15, R.2.809). Eventually the ship limped back to Maryland with a cargo of rum (*New-Jersey Gazette* 1782); subsequently, Dean undertook a short, ineffective voyage to Cuba where his ship was embargoed and he was briefly detained (Wilgus 1942:15–17; NARA Group 15, R.2.809). The war ended shortly thereafter for Dean, and by 1783 the Treaty of Paris formalized American independence. Soon Dean focused his attention on the new economic opportunities available to merchants and sailors of his experience, now that the yoke of British rule was lifted.

## DEAN AND WATERFRONT DEVELOPMENT

At the start of the war, Dean built his house along the waterfront, and after his service ended, he refocused his energies on improving his property and expanding his trading business. When Dean purchased his double lot along the Albany waterfront in 1776, the property was already improved by the former owner Nicholas Brewer (Munsell 1865:275). Brewer constructed two small bulkheads to create two lots, each approximately 20 by 20 m (65.5 by 65.5 ft) square. The wooden bulkheads were about 1.5 cm (5 ft) high, created from joined lengths of stacked horizontal logs and their support structures (Kilkenny 2002:6.36). The support timbers laid toward the land side were tied into the wooden wall with mortise and tenon joints and supported with deadmen timbers over the top. Eventually the whole of the crib system was filled with soil and other debris to create new land.

The lot was further expanded under Dean's ownership in the 1780s. In coordination with the city and other nearby landowners (Kilkenny 2002:6.18), Dean increased the length of the lot to 36.5 m (120 ft) with the construction of a new bulkhead in 1786, as calculated by dendrochronology (Paul Krusic personal communication, May 2008) (Figure 9.6). This construction was quite different from the earlier bulkhead composed of "stacker" construction. Since each landowner was responsible for the cost and management of the land-building efforts, each was given some latitude in the methods and style of its construction. Instead of a horizontal wooden wall, Dean commissioned a bulkhead composed of driven wooden piles of white pine. Each pile with a diameter of about .3 m (1 ft) and length



**Figure 9.6.** The archaeological remains of Stewart Dean's 1786 waterfront, viewed southwest. The stacked timber ricking likely helped to support the mechanical pile driver used to drive the posts into the silty river bottom. The ricking, subsequently left in place, both served as additional fill material and likely provided additional support for the waterfront during construction. Dean's property is outlined. The 1760s horizontal bulkhead is to the right, and the 1786 waterfront is to the left. The stone-lined well was previously located in the bottom right-hand corner, but was removed by the time of this photograph.

around 3 m (10 ft) was mechanically driven about 1.5 cm (5 ft) into the river bottom. Behind the vertical wooden wall, hundreds of smaller limbs—presumably taken from the pine trees used in the piles—were placed in heaps. The "stacked ricking" served as a support for the pile-driving device (Kilkenny 2002:6.49). It is possible that Dean commissioned a bulkhead based on his experiences with other ports of call throughout the eastern seaboard and abroad, while other landowners more familiar with local construction traditions stayed primarily with the style of horizontal bulkheads.

With the creation of the 1786 waterfront, Dean also commissioned the construction of a stone-lined well situated near the kitchen wing of his house (Figure 9.7). Albanians of the day often drank Hudson River water, even to the detriment of their own health (Fisher et al. 2007). Once the shoreline expanded another 16.7 m (55 ft) to the east, a closer water supply became an important convenience. The well consisted of a stacked, cut-stone collar over a barrel. The stone collar averaged about .8 m (2.8 ft) in diameter in the interior and 1.8 m (6.2 ft) on the exterior. The barrel was extremely well-preserved with the wooden strap ties still attached. The well shaft extended about 3.6 m (12 ft) in all, and supplied the Dean family with water until around 1805 when the barrel filled with silt and sand. Once the stone



**Figure 9.7.** Stewart Dean's stone-lined well with wooden barrel bottom after the archaeological excavation. The well, built in 1786 contemporaneous with the waterfront expansion, fell out of use around 1806 and was filled with trash and debris from Dean's house until around 1809. The fill material contained numerous artifacts associated with the daily life of the Dean family and articles particular to Dean's travels to China.

well stopped producing water, it was abandoned and filled with trash from the Dean house. The impressive artifact assemblage can be directly related to Dean's daily life on the waterfront as well as to his role as a local merchant and world traveler. A greater discussion of the assemblage is presented later in this paper.

Prior to filling the stone well with trash, Dean (like many other Albanians of his day) discarded much of his household trash into the river. Excavations in front of the former waterfronts, dating from the 1760s and 1786, located some of this material from Dean and his family before they started using the well. Much of the material found in the river silt deposits just off of Dean's docks consisted of animal bone, fishbone, and clam and oyster shells. Along the 1760s waterfront were also a variety of ceramics, including lead-glazed earthenware, buff-bodied earthenware, white-salt-glazed stoneware, creamware, and Whieldonware, as well as Chinese porcelain, and pearlware. The last two are particularly noteworthy, as these deposits were sealed by the early 1780s. The porcelain dates to the period before Dean's intrepid

voyage to the Far East, suggesting that Dean was able to procure Chinese goods both during and after the Revolutionary War. Pearlware accounted for only a very small percentage of the assemblage, but is remarkable in that the English ceramic was not introduced to the American market until the early 1780s (Noël Hume 1969:128). Pearlware is not commonly found on sites in Albany until the 1790s and early nineteenth century. Apparently, just before leaving for China, Dean had the ability to buy some of the most fashionable ceramics of the day, including the newly manufactured pearlware.

Other more personal items were also found among the detritus along the 1760s waterfront. These include a molded pewter "USA" button dating to the Revolutionary War and commonly worn on a soldier's overcoat. Several other less decorative buttons, including ones made of bone and copper, were also found, as well as several clothing buckles.

Also found in the waterfront context was a very early American coin, known as the *Nova Constellatio* copper, minted in 1785. This type of coin was struck in Birmingham, England, for use in New York to help with a shortage of coins during the formative period of the new republic. As a merchant, Dean may have found these new coins useful in the quickly evolving American economy. Since the coin was minted just before Dean's voyage to the Far East, he likely acquired it sometime after his return to Albany.

The excavations along the second waterfront built in the 1780s produced a similar assemblage of artifacts. These docks were erected in the period immediately following Dean's first trip to China, yet the same percentage of Chinese export porcelain was found in this assemblage as in deposits that dated to before the excursion. At this early date, Dean's household could be characterized as similar to that of many of his neighbors, but this would change with additional voyages to the Far East.

Again in 1793, Dean and the other waterfront landowners improved their lots by constructing a third major bulkhead. This time, the lot size increased to 20 by 54.8 m (65.5 by 180 ft) wide. In addition, at the eastern end of the lots, a new access road and public dock were constructed. Unfortunately, the excavation at the SUCF site did not extend east far enough to determine the construction style of the 1793 bulkhead.

Dean continued to improve his property and maximize the economic potential of the land by utilizing the remaining Dock Street frontage to construct a three-story warehouse immediately south of his home (Figure 9.4). According to a later map (van Vechten ca. 1790), the brick structure originally measured 10.6 by 12.8 m (35 by 42 ft) with a covered passage way (incorporated into the structure) that allowed access to the waterfront in

the rear. This warehouse and storefront served Dean's growing trading business at a prime commercial location along the Albany waterfront.

With the completion of the waterfront expansion after 1793 and the creation of Quay Street along the eastern portion of the property, Dean constructed four additional warehouse structures fronting on the new road. These structures varied slightly in size, ranging from about 9.7 by 9.7 m (32 by 32 ft) to as large as 13.1 by 8.8 m (43 by 29 ft). Similar to structures built along New York City's waterfront and Dean's house, the warehouses utilized a support system to build over the unstable fill (Cantwell and Wall 2001:238). Timber piles, about 86 cm (34 in) in diameter, were driven in a staggered line around the perimeter of the foundation, every (1 m) 3 ft. Large wooden planks, about 15 cm (6 in) thick were then placed over the piles, and the mortared stone foundation was built over the planks (Krievs 2002).

The taxable value of Dean's property between 1779 and 1799 increased from £400 to about £1000 (Albany City Tax List 1779, 1799) as a result of the improvements made by constructing the new waterfront and the allied warehouses and storefronts. Other aspiring traders and merchants in the city leased or rented the buildings from Dean. As an entrepreneur, Dean invested heavily in the potential of Albany's docks and wharves. The income stream from his waterfront lots provided Dean with important capital to undertake his oriental excursions.

## VOYAGES TO CHINA

Dean proved to be a capable mariner during the Revolution, and with his growing waterfront businesses, he could invest in the new opportunities afforded in the American economy. No longer under the thumb of the British Crown and its restrictive laws that prevented Americans' direct trade with China, New York entrepreneurs could participate in markets that were previously closed (Wright 1984:22). Undaunted by the death of his son and young wife in 1783, Dean continued to ply the waters of the Hudson River and the East Coast (Wilgus 1942:15). The newly opened markets of the West Indies and the Far East tempted Dean and other merchants and traders (Mudge 1962:13–14). To take full advantage, Dean partnered with Albany businessman Teunis van Vechten to construct a sloop known as the *Experiment* in the Albany shipyards. The small sloop measured 17.6 m (58 ft) in length, had a beam of over 5.8 m (19 ft), and registered 77.5 metric tons (85.5 tons) (Fontenoy 1995:289).

The sloop departed on its maiden voyage to Madeira in July 1784 with later stops in the West Indies and

Charleston, South Carolina, and eventually New York City. Less than six months later, Dean sold shares of the ship to new partners James Stewart and John Jones (Fontenoy 1995:1). After a few other trade runs to Madeira and the West Indies proved financially unsuccessful, the future of the ship remained in doubt. The West Indies quickly became crowded with American traders eager to make their fortunes. As a result, Dean's ventures produced less-than-desired returns. Outside of the West Indies, many considered China's market to have the greatest potential due to the rising demand for Chinese goods by American consumers (Mudge 1962:15). Despite the loosening of British control, it was still not clear immediately after the war that the Chinese would be interested in dealing directly with Americans. A trading excursion to China would be difficult and costly, without any guarantee of positive results. In part, the economic risk stemmed from the highly controlled Chinese market, where the emperor allowed only a handful of individuals called the Hong merchants to engage with foreign traders. The "Canton System," as it was known, remained law until 1842 (Wright 1984:37). The eastern market was also highly erratic, with wild fluctuations in prices for foreign raw materials and goods. Conversely, Chinese cloth, teas, and porcelains commanded a premium from the Cantonese traders as they were highly prized by European markets (Fontenoy 1995:289). American traders devised two very different courses of action to manage the potential risk: larger excursions with a diverse cargo, or smaller excursions more narrowly focused. Robert Morris, a wealthy financier, helped to underwrite the expense of sending the *Empress of China*, a large supercargo, to China to initiate trade. The first successful American trading venture to China was completed by the *Empress of China* in 1785, thus paving the way for future attempts (Mudge 1962:16).

A consortium of New York and Albany businessmen studied the success of the *Empress of China* and quickly mobilized to undertake their own voyage. Unable (or willing) to risk large amounts of capital on a relatively unproven trading expedition, the financiers hedged their bets. Instead of retaining a large ship to make the voyage, the investors called upon Stewart Dean and his small river sloop the *Experiment* to undertake the 22,530 km (14,000 mile) journey.

The ship carried a burden of only 77.5 metric tons (85.5 tons); the British East Indians by comparison could hold 905 metric tons (1,000 tons) or more (Fontenoy 1995:289). There was much less risk involved with the smaller ship, however, as fewer crewmen were needed and less capital was required to fill its hull with trade goods. Reduced overhead was an important consideration for the investors, as the financial risks

stemming from an ocean disaster, pirates, and/or the potential poor return for exported goods were quite high. The British East India Company had a near monopoly on trade with the Chinese at Canton, and hopeful American merchants were unsure whether the Chinese or the British, through their influence with the Chinese, would permit them access into this carefully controlled market (Wright 1984:23).

Regardless of the perils, the venture moved forward. The *Experiment's* cargo included foreign goods of Scotch whiskey, Madeira wine, and Jamaica rum along with local tars and turpentine, furs, and tobacco. In addition, the cargo included ginseng root, which grows wild through much of the Hudson Valley. Ginseng was prized in the Far East for its supposed medicinal value. During the *Empress of China's* visit, ginseng fetched over \$5 per pound, leading Dean and his investors to procure over 2721 kg (6,000 lbs) of the root from 12 different suppliers (Fontenoy 1995:291). To be certain that he had enough capital to buy goods for export, Dean also brought 18 boxes of milled Spanish silver worth about \$1,000 each (Wilgus 1942:28). The silver was a commodity known to bring a favorable return in China (Wright 1984:24).

With the ship fully outfitted and filled with goods, the sloop *Experiment* left Murray's dock at Wall Street and Front Street in New York City on December 18, 1785 (Wilgus 1942:30). After a speedy and uneventful voyage eastward through the Atlantic and around the southern tip of Africa, the sloop made safe landing at the basin of Whampoa in Canton on June 12, 1786. Shortly after its arrival, the *Experiment* was joined by five other American vessels, including the *Empress of China* on her second voyage.

Once in Canton, Dean and his crew were isolated from the locals and forced to deal with the Hong merchants. Fortunately, Dean found a favorable partner in one of the more prominent of the Cantonese traders, Howqua (Fontenoy 1995:291; Munsell 1850:261). Unfortunately for Dean, his imports did not command the return that the investors had hoped. Ginseng flooded the Chinese market, and the value quickly dropped to just over \$1 per pound. Despite the poor value of his imports, Dean procured an extensive inventory of goods for export with the Spanish silver. The return cargo included over 400 chests of tea, 30 chests of porcelain, and 80 bales of blue-dyed Nankeen cotton cloth equaling about 30,000 pieces (Fontenoy 1995; Mudge 1962; Appendix 1).

Nearly six months after its arrival, *Experiment* headed home, following a different course, around South America and north through the West Indies, and finally arriving back in New York City on April 22, 1786—a passage of 4 months and 12 days (Wilgus 1942:34). Immediately upon the ship's arrival, Dean and his

investors retained William Laight and Company to sell the cargo (*Independent Journal* 1787). In all, the voyage turned over a small profit, about an 8 percent return on the initial investment (Fontenoy 1995). Despite this, many of the original investors in the consortium tried to raise more money for a return voyage under the direction of Captain Dean. The capital from that group never materialized.

When Dean returned to Albany (Figure 9.8), the local newspapers heralded his trip, writing:

It was matter of surprise to the natives, and Europeans in that quarter, to see so small a vessel arrive from a climate so remote from China: and must have given them an exalted conception of the enterprizing (sic) spirit of the citizens of the United States. The successful and safe return of Captain Dean, has taught us, that fancy oft times paints danger in much higher colours than is found really to exist, and that maintaining a spirit of enterprise, diligence, and activity, we are unable [enable] to surmount difficulties, which on a cursory view, are deemed fraught with dangers. (*Hudson Weekly Gazette* 1787)

While Dean was away at sea for over a year and a half, it is unclear who tended to his young children Maria and Anthony after his wife's death. The city tax assessment records indicate Captain John Bogart, who was also a privateer during the war and a local merchant-trader, lived in Dean's house (Kirk 2003). Perhaps, Dean asked his friend and business partner (Dean 1784), to assist him and his family during his voyage.

While staying with his first mate John Whetten in New York City, Dean was introduced to Whetten's sister Margaret. They married in the Dutch Reformed Church in Albany on October 4, 1787. Together, they had a large family that included Margaret (1788), Abraham (1790), Jane or June Ann (1793), Sarah (1794), Eliza (1796), Stewart (1800), William (1802), Henry (1806), and Henry George (1807)—in addition to the two children from his previous marriage (Wilgus 1942:16 and 41).

Following his earlier successes, Dean returned to China (Munsell 1850:261). According to family lore, the captain made a subsequent voyage in 1797 accompanied by his young son Abraham (Wilgus 1942:40). Newspaper accounts of ship activity indicate that Dean sailed the Ship *Jenny*, a much larger vessel than the sloop he originally navigated (*The Daily Advertiser* 1798). Dean and his investors appear to have purchased the ship specifically for this single excursion. Unfortunately, the voyage started badly. While traveling through the West Indies shortly after the first leg of the journey from New York City to St. Thomas in May (*Oriental Trumpet* 1797), Dean was overtaken by French privateers, who towed



**Figure 9.8.** A conjectural view of Dean's triumphant landing in Albany after his voyage to Canton as presented in L. F. Tantillo's *The Return of the Experiment* (also found in Tantillo 1996:63). The archaeology at the SUCF site suggests that the Albany waterfront was likely quite different. The T-shaped wharf was likely removed by this point. Before leaving, Dean had contracted to expand his dockage eastward; the whole of the waterfront likely extended beyond what is depicted.  
Acrylic on canvas. KeyBank Collection, Albany New York.

his ship to Santo Domingo (*The Gazette of the United States* 1797). It is not clear if the French confiscated his cargo; however, Dean apparently continued on without much delay to Canton, as he completed the round trip in 10 months. On March 15, 1798, he returned to New York City with the *Jenny* fully laden with 1,700 boxes of tea and silk lutestrings (ribbons), satins, and taffetas, as well as 90 chests of "well sorted China" (*Albany Gazette* 1798b; *The Daily Advertiser* 1798). Promptly upon his return, both the cargo and ship were auctioned off (*New York Gazette and General Advertiser* 1798).

It appears that Dean also took commissions from some of his customers, in addition to the general cargo. John Stevenson, one of the *Jenny*'s investors, received monogrammed gilt porcelain tea and table sets directly from Dean. Several months later Dean sold Stevenson five chests of tea and silks in return for his ship shares (Groft and Mackay 1998:252). The evidence indicates that Dean retained some part of the cargo to sell in his own storefront, as well.

His final recorded journey to Canton proved to be most eventful for six of Dean's crew, as documented in correspondence from his first mate, Josiah Hook (*Alexandria Advertiser* 1801). In August of 1800, while sailing the Ship *Severn* through the Strait of Atlas near Java, Dean was forced to abandon some of his ship

mates. When the fresh water supply dwindled to dangerously low levels due to a miscalculation by the crew, Dean made his way to the island of Gibeon, off Madura along the southwest coast of Java. Although a Dutch colony by name, natives constituted the whole of the small island's population. Dean sent a small party of six crew, including Hook, second mate Hugh Copeten, seamen James Yost, Thomas Bridges, and T. Rogers, and his steward Prince (a freed African who accompanied him on his first journey), to the island to obtain the necessary provisions (*Alexandria Advertiser* 1801). The native leader, known as a Rajah, met the crew and immediately suspected them to be English spies. Despite the presentation of papers and the American flag, the local leader remained unmoved in his suspicions of Dean's crew. The crew's small tender and its oars were taken away and the men rounded up on the shore and led inland. Dean helplessly watched his crew become prisoners from aboard *Severn*. Supposedly, Dean lingered off the coast for five days hoping to catch sight of the crew, but eventually he continued on his journey (*Albany Centinel* 1801). Shortly afterward the *Severn* arrived safely in China. The natives eventually escorted the crew members to Batavia, the Dutch capital of Java (*Alexandria Advertiser* 1801).

The reason behind Dean's decision to abandon his crew and make directly for Canton may never be clearly

known, although it became a minor sensation judging by the newspaper accounts of the day. There was, however, only a narrow window of opportunity for foreigners to trade with the Hong merchants, typically between August and March. Dean was likely sensitive to his time constraints, particularly as John Jacob Astor and three of his partners largely underwrote the voyage. By this time, Astor was on his way to becoming America's first multimillionaire, having made his fortune in the fur trade (Madsen 2001). Astor tried to parlay his riches in furs into much larger profits through the China trade. Dean may have felt pressure from Astor to arrive early in the trading season to receive the greatest return on the goods that he shipped. Furs, since the time of Dean's first trip, remained one of America's more marketable raw materials in the Far East. Serving this market, Astor exported 30,573 sealskins, 1,023 beaver skins, 321 fox pelts, 103 otter skins, textiles, the scarlet-dye cochineal, and of course ginseng, with a fair amount of specie (Haeger 1988:189; Madsen 2001:51).

To assist him in gaining a foothold in this competitive marketplace, Astor summoned Dean to pilot the *Severn* and negotiate the trades. Dean's wife, Margaret Todd Whetten, and Astor's wife, Sarah Todd, were cousins. The connection between Dean and Astor likely started years earlier around 1785, at the time Astor began obtaining furs in and around the Albany market. By the 1790s, Astor largely had moved his center of operations to Montréal. However, the Astor family appears to have continued to keep ties in the Albany area throughout the early nineteenth century (Madsen 2001:34 and 75). During the time when Astor moved north, Dean remained his local Albany agent (Madsen 2001:51).

The *Severn*'s return cargo included silks, satins, nankeens, taffetas, fans, nutmeg, cloves, porcelain, and tea (*Commercial Advertiser* 1801, Haeger 1988:189; Madsen 2001:52). Much of the goods were immediately sold in New York; the remaining lot Astor re-exported to even-greater profits in Europe. Dean helped propel Astor's growing empire to new heights. Within a few years, Astor purchased the *Severn* from Elijah Pell and Thomas Pearsall and constructed two other ships specifically for trade with China (Madsen 2001:52). Astor eventually cornered much of America's trade with the Far East. During the War of 1812, through a series of deft political maneuvers, Astor managed to get Thomas Jefferson to unwittingly grant him a monopoly on the Chinese market despite the enforcement of the Embargo Acts (Madsen 2001:70–71). Astor profited handsomely and, in turn, invested the profits in New York City real estate, amassing an even greater fortune. Sensing a changing market and reduced profits, Astor abandoned the China trade after 1824 to focus on new ventures (Haeger 1988:201–202).

As John Haeger noted, the success of a voyage to China rested largely on the cargo, but "the choice of captain . . . was an equally important task" (1988:189). John Jacob Astor appears to have made a wise choice in Stewart Dean. Although he never again returned to China himself, Dean opened a vast new market to one of America's greatest capitalists of the nineteenth century, a feat that appears to be largely forgotten in history.

## LIFE AFTER THE SEA

After his return in 1801 from Canton, there is little evidence that Dean continued to sail. Instead, Dean appears to have turned his attention to family life in Albany. He tried to sell (without success) and later lease his house along the waterfront between 1806 and 1809 (*Albany Gazette* 1806; *Albany Register* 1809), and eventually moved to a more fashionable neighborhood in Albany's Arbor Hill. The small estate in Arbor Hill contained two dwelling houses and several outbuildings, as well as four acres of orchards (*Albany Gazette* 1814).

It was around the time of Dean's relocation to Arbor Hill that the stone-lined well behind his house on Dock Street property apparently silted in. Shortly afterward, the Dean family filled the empty well with trash from the house and the contents of the family's chamber pots. The well featured three discrete levels of deposition. At the bottom was river silt mixed with a small number of artifacts. Immediately above the silt, about .4 m (1.5 ft) above the wooden barrel, was a stratified deposit that consisted mostly of night soil. Once the well was abandoned, the contents of the Dean family's chamber pots and occasionally the entire vessel itself ended up in the waterless well. This appears to have lasted quite some time, several months to a year or so, as over 0.7 m (2.25 ft) of night soil accumulated. Around 1809, when the family moved to Arbor Hill (Albany City Tax List 1809), the well was sealed. Two levels of fill capped the night soil deposits, the deeper of which contained several artifacts that could be directly tied to Dean and his foreign travels. The upper fill deposit appears to be from the mid-nineteenth century. The upper fill level is unrelated to Dean's time on Dock Street. The fill and night soil in the well were full of material culture from Dean's house, providing evidence of the household furnishings of his waterfront home just before he retired from the waterfront.

In the lower layer of fill were the fragmentary remains of a prattware (pearlware) water pitcher. The pitcher was not particularly extraordinary, except that it commemorated the victory of Admiral Lord Horatio Nelson at Trafalgar in 1805 during the Napoleonic Wars (Figure 9.9). The pitcher helps date the deposit to after

1805, but also raises a question about Stewart Dean. Why would a Revolutionary War hero who fought against and was captured by the British navy keep a pitcher celebrating a British naval triumph, particularly when the hero was Lord Nelson? Nelson, who spent a good part of his career in the West Indies, before, during, and after the War for Independence, was anathema to American merchants (Pettigrew 1849:2–24). Although largely ignored by many Caribbean merchants and government officials who relied on cheap raw materials from American merchants, the British Navigation Acts forbade American vessels from trading with Britain at her colonial islands and outposts. Unmoved by local sentiments, Nelson ardently enforced the acts, despite the difficulties this imposed on the islands. Perhaps he viewed the task as an opportunity to advance his British naval career. Just before Dean set sail for China in 1785, Nelson boarded four American vessels near Nevis, seizing their cargoes.

Is it possible that Dean and Nelson crossed paths in the West Indies? Perhaps Dean, like many of the English, had great respect and admiration for Nelson and his accomplishments, despite his hand in the Revolution and later enforcement of the Navigation Acts. In the small community of West Indies traders, it is not difficult to believe that Dean and Nelson crossed paths; however, the nature of their relationship can only be speculated upon, given that the only evidence is the

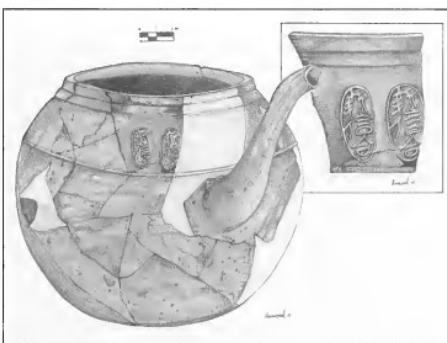
prattware pitcher.

In addition to pearlware, several fragments from creamware plates, pitchers, bowls, and a chamber pot were unearthed. Several overglaze-painted pieces of Chinese export porcelain, mostly teacups and saucers, were also found. Lesser amounts of redware, stoneware, and various earthenwares were also in this level. A fairly large assortment of glass in the well included fragments of wine bottles, gin case bottles, tumblers, lamp chimneys, and pharmaceutical (medicine) bottles, along with ubiquitous tobacco pipes, faunal bone, shell, and nails.

The deeper deposits associated with the night soil proved to be much more varied and artifact rich. Among the most unusual of the artifacts were the broken sherds of an Asian sandware teapot often referred to as Yixing pottery (Figure 9.10). This ceramic with a light buff, stoneware body is common in the Far East, but not well-marketed to foreign countries until later in the nineteenth century, and even then it is quite rare to find archaeologically. Along the neck of the teapot two small cartouches were stamped with several Chinese characters. The markings roughly translate as "New Joint Venture." The teapot may have been presented as a gift by Chinese officials during one of many ceremonial rituals undertaken during the protracted trading process in Canton (Van Dyke 2005:26). Or perhaps it was sent later by Howqua, who was known to continue



**Figure 9.9.** Fragments of this prattware (pearlware) pitcher commemorating Admiral Lord Nelson's 1805 victory at Trafalgar (NYSM A-A2002.20.R02) were found along with other items from Dean's family in the well shaft. It is not clear why Dean may have owned this pitcher. Both Nelson and Dean spent a significant amount of time in the West Indies in the 1770s and 1780s, and perhaps they were acquaintances.  
Courtesy New York State Museum, Albany, NY.



**Figure 9.10.** This unusual sandware teapot (NYSM A-A2002.20.862.27), of a type known as Yixing pottery, may have commemorated Dean's historic voyage to Canton in 1786 or the relationship Dean forged with Hong merchants and John Jacob Astor in the early nineteenth century. The Chinese cartouche near the top of the teapot roughly translates as "New Joint Venture."  
Illustration by Steve Sherwood 2001.

to "send over a chest of black tea occasionally for the captain long after the latter had discontinued his voyages" (Munsell 1850:261).

Hector St. John de Crevecoeur, in his later recollections of meeting Dean aboard his sloop *Experiment* in the late 1780s, described the captain's quarters as "furnished in Chinese style, lighted by candles from the same country, each one enclosed in its glass bowl" (de Crevecoeur 1937:17). Dean clearly enjoyed surrounding himself with the trifles of the Far East, like the small, carved cricket cage excavated from Dean's well. The bone cage, only about 5 cm (2 in) long, featured five sets of small round airholes along the body and was rather plainly decorated with five incised lines (Figure 9.11). The cage originally had two end caps that threaded onto the body of the cage, but they were not found with the cage or in the deposit associated with the night soil.

Many people in China kept crickets as pets, believing they brought good luck and prosperity to those around them (Solomon 1984:76). The fascination with crickets may have started as early as the seventh century during the Tang dynasty, and is still widely popular in some areas (Demick 2008). In addition to keeping the small insects for pets, the Chinese kept fighting crickets for sport and gambling. A multitude of different cricket cages evolved over the years to keep and transport crickets. Originally, cricket cages were simple hollow gourds, but through time they became more elaborate

and stylized. At the time of Dean's voyage, cages of all types and sizes could be found, including ones made from porcelain, antler, wood, bamboo, bone, metal, jade, shell, and ivory (Solomon 1984:82).

A second, more elaborate, cricket cage was found on Dean's waterfront property along the foundation of one of his Quay Street warehouses built in the 1790s (Figure 9.12). This carved-ivory cage was quite small, only about 3.5 cm (1.3 in) long and 2 cm (.7 in) wide, with a delicate broken handle and threaded end caps. The handle could be screwed into the tube and may have had a feather attached. The "tickler," as it was known, helped to induce a cricket to sing or fight (Solomon 1984:86). The airholes in this cage were distinctly different from the other, consisting of two sets of diagonal slits along both ends.

Specific cages were used to keep singing varieties, provide "summer" and "winter" homes, and even for transporting, testing, and fighting crickets. The associated paraphernalia were also quite well-developed. Nets, scales, water-droppers, cleaning brushes, and "ticklers" were all part of the cricket cage assemblage. The cages found on Dean's property can best be characterized as "carrying tubes," based on their sizes and forms (Solomon 1984:86). No other artifacts associated with cricket cages were found in the assemblage, but it is likely that Dean kept at least one—if not several more—elaborate habitation cages in addition to the transportation cages.



**Figure 9.11.** Like the Asian sandware teapot, Dean probably brought this carved cricket cage (NYSM A-A2002.20.865.009) back to Albany from one of his voyages to Canton, China. This particular cage, rather plain in decoration, likely served to transport singing or fighting crickets. Later, the crickets were placed in larger, more elaborate cages.

Courtesy New York State Museum, Albany, NY.



**Figure 9.12.** An example of another, slightly more elaborate, carved-ivory cricket cage (NYSM A-A2002.20.0691.007). This cage as located along the foundation of one of Dean's warehouses that fronted on Quay Street. Like the other cage, Dean likely brought this back from the Orient perhaps to amuse some of his small children or grandchildren.

Courtesy New York State Museum, Albany, NY.

Like the teapot, the cricket cages could have been gifts from Dean's trading counterparts, or he could have purchased them himself to delight his small children and grandchildren. Other evidence of children's toys came from the night soil deposit of the well. This included a small pewter teaspoon that was part of a larger "toy" equipage. Miniature sets of porcelain and silverware were popular among affluent families of the day. In 1787, Samuel Fleming of New York wrote to a merchant in Canton requesting, among other items, "a child's tea set for my daughter" (cited in Mudge 1962:96). It is likely that Dean and other middle- and upper-class families tried to engage their children early in the complex social ritual of tea drinking to instill the proper etiquette needed later in life (Roth 1988:450–457).

A significant portion of the assemblage from the night soil deposits of Dean's house consisted of porcelain, for both table settings and equipage (Table 9.1). Two principal types of porcelain formed the majority of the collection: hand-painted with blue underglaze decoration and white-bodied porcelain with polychrome hand-painted overglaze. The underglazed wares, today often referred to as Canton or Nankeen porcelain, often featured the "Willow" or "Island and Bridge" design typical of the late-eighteenth-century period (Gordon 1984:402; Fenton 2002:9.6). By this time, the Chinese were mass producing Willow patterns specifically for the American and European markets. The landscape designs were in part based on poor English reproductions of porcelain (Savage and Newman 1974:315). In essence, the Willow scenes involved the Chinese imitating the English who were imitating the Chinese. These

types of porcelain, by the end of eighteenth century, had dropped in price allowing most middle-class families the ability to afford them.

Similarly, the "Lowestoft Floral" design with its hand-painted overglaze decorations originated in England as a form of imitation of the delicate floral designs of Chinese porcelain. Through time, the design was attributed to Robert Allen of the Lowestoft pottery, hence the name (Gordon 1984:13). Two plates and a small slop bowl, part of the tea equipage, from the night soil deposits were finished in the Lowestoft Floral tradition. Such pieces were extremely common in American markets at the time and it is unknown whether Dean obtained these examples himself.

A nearly whole example of a small, hand-painted overglazed "trencher salt" or "salt cellar" (a small elevated dish used to serve salt on the table) with the Lowestoft Floral design also was recovered in the same deposits (Figure 9.13). The small oval dish had a chamfered base and shallow top. Although the overglaze paint and gilt had exfoliated through time, a faint monogram can be seen on the top of the trencher salt. It appears to read "D" with several other illegible letters. Very likely, this artifact was part of a much larger porcelain table service used by the Dean family. Personalized porcelain sets, which had to be ordered, were extremely popular with the well-to-do in the late eighteenth century, and many in the Albany area, perhaps trying to add value to their sets, attributed them to Dean and his trip (Howard 1984:75–77; Munsell 1850:261). It is likely that Dean purchased his own set of porcelain during one of his voyages.

**Table 9.1.** Comparison of Privy Ceramic Assemblages.

Ceramic Type	Bogart		Dean		Eights	
	1790–1797		1800–1809		1805–1815	
	Count	Percentage	Count	Percentage	Count	Percentage
Chinese export porcelain	1	<1	91	12	104	12
Pearlware	31	27	163	21	171	21
Creamware	77	65	379	50	442	54
Deft	1	<1				
Stoneware	1	<1	54	7	17	2
Asian sandware			46	6		
Slipped and glazed redware			28	3		
Lead-glazed redware	7	6			53	6
Other	1	<1	4	<1	39	5
<b>Total</b>	<b>119</b>	<b>100</b>	<b>756</b>	<b>100</b>	<b>826</b>	<b>100</b>

**Table 9.1.** The types of ceramics fragments found in the privies of Captain John Bogart (utilized 1790–1797), Captain Stewart Dean (1800–1809), and sail maker Abraham Eights (1805–1815), all of whom were neighbors and peers in Albany's merchant class. Of note is the lack of porcelain in the Bogart assemblage, and the parity in Dean and Eights assemblages.



**Figure 9.13.** A variety of the Chinese porcelain discarded into the well shaft (NYSM Accession No. A2002.20). These examples are not particularly elaborate. The upper row of teacups consists primarily of designs in the Lowestoft Floral tradition, and along the bottom are saucers crafted in the Willow design. The salt trencher located in the center of the photograph appears to be a monogrammed piece from a larger set that Stewart Dean likely obtained while in Canton.

Courtesy New York State Museum, Albany, NY.

The Douw family, then living in the Wolvenhoek house near present-day East Greenbush, also cited Dean as the source for their monogrammed porcelain:

The china was of delicate texture and was valued highly; for it was brought all the way from China in the sailing vessel of Captain Stewart Dean, of Albany, on the first journey ever made to that far country by a vessel docked at Albany. It was made to order, with initials worked into the pattern. (Reynolds 1911:388)

The ultimate disposition of that material today is unknown. Several examples, however, still exist in the Albany area. Anne Stevenson's monogrammed coffee service is thought to have been purchased through Dean by her father John, a business partner (Groft and Mackay 1998:252). The set is now part of the collection at the Albany Institute of History & Art.

In addition to monogrammed sets, other types of personalized services, often decorated with patriotic and Masonic motifs, were common. An example of a porcelain tea set with an American Eagle design came from deposits associated with Dean's next-door neighbor, Abraham Eights. Several other very fine examples of Chinese export porcelain were in the same deposits, implying that Eights, like other Albanians, commissioned Dean to procure sets of personalized porcelain.

Aside from the monogrammed salt cellar, none of the Chinese porcelain in the night soil deposits in Dean's well was of particularly high quality, and thus not very expensive. Curiously, the same assemblage included four pearlware saucers decorated with blue transfer-printed designs. These English ceramics were quite common and inexpensive, since the factory seconds, often with blemishes, were sold in the American market. The transfer-printed design allowed for the mass-production of these items. The saucers in Dean's well are unusual because they feature the same Willow pattern as that of the Chinese export porcelain. Despite unique access to the Asian market and the wealth to procure many of the items available there, Dean still purchased these cheap imitation pieces of porcelain. It may be that the pearlware was used in everyday settings and, like many of us today, the Dean family saved the "better" monogrammed porcelain for special occasions and to impress guests.

In addition to rare Chinese goods, the Dean assemblage also included two slip-decorated redware bowls that were produced in the Canadian Maritimes in the early nineteenth century (Figure 9.14). Much like the Asian sandware, this type of ceramic is uncommon in the archaeological record in Albany. Although not particularly fine or expensive, the redware bowls speak to Dean's appetite for the unusual in terms of household goods.

The assemblage also contained more prosaic examples of English pottery such as pearlware and creamware bowls, cups, mugs, tankards, pitchers, twifflers (muffin



**Figure 9.14.** Dean may have purchased these two Canadian Maritime redware bowls, pictured at the top, while sailing along the East Coast. The redware porringer, below, likely came from a local potter (NYSM Accession No. A2002.20).

Courtesy New York State Museum, Albany, NY.



**Figure 9.15.** English-produced creamwares comprise the bulk of the assemblage located in the well shaft. Dean likely used these dishes every day, perhaps preserving the finer porcelain for special occasions. A variety of forms was found, including (clockwise from upper left) a large bowl, a tankard, a pitcher, large serving plate, a large shallow serving bowl, and a platter, as well as plates and bowls of various sizes (NYSM Accession No. A.2002.20). The plates were typically decorated with the "Royal" pattern around the rim (Noël Hume 1969:116).

Courtesy New York State Museum, Albany, NY.

plates), large plates and platters, and vegetable dishes, as well as chamber pots (Figure 9.15). Common creamware comprised the majority of the ceramics in the night soil deposits (Table 9.1). These rather plain and unadorned sets probably were used on a daily basis as the principal tableware in the house. Stoneware and other earthenware fragments, as well as wooden bowls, evidence the daily tasks of cooking, preparing, preserving, and serving food in the Dean home.

The family ate modestly. Many of the small, highly broken bones in the deposit consisted of jaws, teeth, and other cranial fragments from animals butchered in the home. The bones that could be identified were mostly sheep/goat with lesser numbers of cow, pig, and a few bird bones. Several fish bones were also found, including cod, salmon, and bass, as well as several sturgeon scutes and a turtle carapace (Fenton 2002:9.11).

Dean and his family apparently enjoyed a variety of fruits, vegetables, and edible herbs, including apples, blackberries, blueberries, cherries, dock, elderberry, figs, grapes, huckleberries, peaches, plums, pumpkins and other squash, raspberries, watermelons, and coconuts, based on the seeds, pits, and rinds also found in the well (Raymer 2001). The coconut may have been picked up by Dean himself on one of his voyages to the West Indies, as they are rare in archaeological sites in

Albany before the 1850s.

The recovery of large quantities of strawberries is somewhat surprising given the lack of space for a kitchen garden on the waterfront. Strawberries were not readily available in commercial markets during the eighteenth century (Raymer 2001:18). Aside from the coconut and strawberries, there does not appear to be much in the Deans' diet that would set them apart from many other Albanians of that day. And although the food remains suggest a relatively broad diet for the Dean family, when compared to families of similar status in other cities, the food choices in the house were rather limited (Raymer 2001:31).

Not all of the plant remains were strictly for diet. Seeds such as pumpkin, watermelon, and dock (an edible herb) had medicinal as well as nutritional value. Dock, a common medicinal remedy for centuries, was often identified as a key ingredient in nineteenth-century pharmaceutical and medical literature for a variety of ills (Raymer 2001:21–22, Spencer 1940:81). Watermelon seeds and pumpkin seeds in particular were thought to be "harmless" worm treatments (Meyer 1973:212 and 271). Three patent medicine bottles found in the same night soil deposits suggest a diverse array of treatments.

The seeds and patent medicine may have helped with the worm infestation in the house. In a small sample of less than a teaspoon of soil, the remains of 1,251 eggs of the wormy parasite *Ascaris* (roundworm) and 49 eggs of the whipworm (*Trichuris*) were identified (Reinhard 2000). The roundworm is the most common of all wormy parasites worldwide; however, the Dean night soil deposits exhibit some of the highest numbers of eggs ever encountered archaeologically in Albany (Fisher et al. 2007). Roundworm infestation would have been readily apparent to the Deans, given that the worms can grow to over a foot in length.

The source of the worm infestation may have been the drinking water. Once the stone-lined well dried up, the Dean family likely returned to collecting water from the Hudson River, as many of their neighbors did (Munsell 1871:65; Kalm 1937:340). The river water was likely polluted even at this early date due to rapid population growth in Albany and covered sewers that flowed directly into the river (Howell and Tenney 1886:503).

Roundworms and whipworms were fairly benign and did not produce a profound impact on the health of the Dean family. Unfortunately, the contaminated water they were drinking likely harbored other, more harmful bacteria and viruses that followed the very same route of transmission (Kirk 2002:11:14). The herbal medicines, pumpkin seeds, and patent medicines may have helped to rid the Deans of their worms in the short term. After moving up to Arbor Hill and using a new source of drinking water, the quality of the

family's health likely improved. Margaret and Stewart appear to have been quite hardy; they lived to the ages of 91 and 89, respectively (Wilgus 1942:43). Neither worms, tobacco, nor alcohol seem to have affected Stewart's health.

Spending much time at sea, it is not surprising that the captain enjoyed smoking tobacco. Pipe fragments, especially long pipe stems, were found throughout the night soil deposits. The stems were unusual not only for their length but also for the consistency of the breaks, which suggests that this was an intentional process to create short-stemmed pipes. This type of pipe came to be known as a "cutty" pipe. Within the well were a number of broken gin case bottles as well as wine bottles (perhaps from Madeira) along with hand-blown glass tumblers and stemware. This assemblage suggests that Dean treated himself and his guests to a variety of fine alcoholic beverages served in the appropriate glasses (*The Federal Herald* 1790). The drinking vessels may have been made locally and sold wholesale from Dean's own warehouse along Dock Street (*Albany Gazette* 1796). In 1794, Dean offered various glass items to the public from the McClallen, MacGregor, and Company glass house that operated in the Pine Bush in western Albany, today Guilderland (*Albany Register* 1794).

It is not clear exactly why several of the artifacts associated with Dean's voyage to China may have been thrown in the well and discarded around his property. According to de Crevecoeur, Dean stated that he would rather have been a farmer in Orange County, New York, and that "... I navigate only to become one some day" (1937:17). Upon moving to Arbor Hill to tend to his orchards, Dean began to throw away many of the old pieces from his trips abroad and time along the waterfront, and started to acquire new, different, and perhaps more fashionable items for his home. It could also have been that the oriental goods had lost their significance in Dean's social life and were thought to be expendable, as will be discussed in more detail below.

After leaving Dock Street around 1809, Dean remained in Arbor Hill until 1818. The following year, in 1819, he is listed at 213 North Market (later Broadway, near its intersection with today's Clinton Avenue) just down from Arbor Hill. By this time North Market hosted numerous grocers, brewers, chandlers, laborers, and saddlers (Albany City Directory 1819). This block consisted primarily of row houses on small lots. Shortly after 1824, Dean left Albany, perhaps to be taken care of by one of his children or by this time one of his 31 grandchildren. He moved for a short time to Lima, New York, in Livingston County, where his daughter June Ann lived with her merchant husband (Wilgus 1942:42). Dean moved again to Delhi in Delaware County, New York (Federal Census 1830), and

while in New York City visiting his daughter Margaret Sedgwick in 1836 he passed away.

After circumnavigating the globe; traveling throughout the Americas, Europe, and Africa; and after moving from Maryland to Albany, then to the western part of New York and the southern portion of the state, Stewart Dean finally came to rest in New York City, where his voyage to fame began. His ashes were placed in the Devoe and Marvin vault of the Marble Cemetery, Margaret survived him by another fifteen years (Wilgus 1942:43).

## DISCUSSION

The archaeology of Stewart Dean's lot along the Hudson River evidences the dynamic career of an American entrepreneur in a new and expanding economy, from ship captain, to merchant/trader, and eventually to landlord. The excavations at their broadest scale revealed numerous structures that reflect the rapid and dramatic changes that Dean effected on his relatively small parcel in pursuit of new economic opportunities. His property nearly doubled in size, beginning in 1776 with the construction of a commodious, middle-class house and continuing with three separate subsequent expansions and improvements of his commercial waterfront. By 1790, Dean had constructed a large warehouse and storefront adjacent to his home, from which he expanded his mercantile business. In part, his business benefited from his expertise and success as a commercial ship captain. Yet Dean shielded himself from the risks involved with his profession, and like many other captains of the time, diversified his interests (Dyson 1982:377). The three warehouses he constructed provided a steadier, reliable source of income and insulated him from the changing whims of local consumers. Dean ended his sailing career after about 1804, and within four years he left the waterfront and abandoned his mercantile interests. For over 30 years, Stewart Dean literally and figuratively helped to grow the Albany waterfront.

The artifacts recovered from within his property also witness his travels abroad and his own personal habits as a consumer within the American and foreign markets. Dean's artifact assemblage, complete with trinkets from the Far East, raises several important questions for archaeologists. First, is the material culture of Dean's home distinctly different from that of his friends and neighbors, or of other similar ship captains on the East Coast? And second, how did Dean utilize his household assemblage to create and recreate his social identity?

As he was a well-traveled ship captain with privileged access to a wide diversity of world markets, it is

tempting to conclude that Dean's household goods were dramatically different from his contemporaries. Two other remarkable assemblages from the privies of Dean's next-door neighbor Abraham Eights and friend and business partner John Bogart provide a point of comparison (Table 9.1). The Eights privy was a very large wooden box vault, situated along the northern side of Dean's property. The deposits largely dated from about 1810. The Bogart privy was located in excavations along Broadway in downtown Albany about two blocks north of the properties of Dean and Eights. Bogart's privy was also a wooden box vault, burned in a large fire in 1797 and subsequently filled over (Kirk 2002, Kirk 2003). From these large and diverse assemblages, perhaps the most informative artifacts are the ceramics.

From his China travels, it is easy to assume that porcelain would comprise a large percentage of Dean's household goods in relation to other Albanians of the time. From the other Albany privy deposits, this appears to be partially confirmed (Table 9.1). The porcelain in Abraham Eight's household was proportionally the same as Dean's. In contrast, Captain Bogart's household did not contain very much porcelain at all (less than 1 percent). All three men were fairly wealthy and successful merchants and traders. Thus, the disparity between Dean and Eights versus Bogart appears surprising. Given that Dean and Eights were neighbors, it is possible that they traded between themselves, which may explain why Eights had such a high proportion of porcelain. The American eagle armorial design on a small tea cup in the Eights privy strongly suggests that he commissioned the piece, likely through Dean. Despite the fact that porcelain, Jackfield, Astbury, and other higher-end tea services were in all three deposits, pearlware and creamware comprised the bulk of the tablewares and tea wares in the assemblages.

At the end of the eighteenth century, Middletown, Connecticut, was an inland port community similar to Albany with a thriving merchant class. Archaeological excavations in the mid-1970s identified seven separate archaeological sites (Dyson 1982:368). The Magill site evidenced the material culture of Charles Magill, a sea captain in the West Indies trade who eventually went bankrupt. The assemblage from the site was mostly recovered from sheet middens around the Magill house dating between the 1780s and 1800s. The vast majority of the ceramics at the site were creamware (42 percent) and pearlware (46 percent). A smaller percentage of the assemblage was porcelain (6 percent), perhaps purchased before Magill's fortunes changed. Similar to the Asian sandware collected by Dean, Captain Magill's deposit had a small number of French Rouen (faience) fragments likely obtained from his time in the French West Indies (Dyson 1982:371). Other unusual wares such

as Japanese porcelain, French redware, and Iberian vessels have been recovered at the Richard Shortridge site in Portsmouth, New Hampshire. The site included the remains of an eighteenth-century house and its outbuildings that were owned and occupied by several different mariners at the end of the eighteenth century (Pogue 1988:52–54).

Another, much more successful, sea captain in Middletown was John R. Watkinson. Trash pits from near his well-built brick house evidenced a large amount of broken tableware from the 1780s to ca. 1810s. Like most of the households discussed, pearlware (57 percent) and creamware (36 percent) comprised the bulk of the assemblage. Porcelain amounted to about 6 percent of the total ceramic assemblage. In another similarity to Dean's assemblage, seven different sets of hand-painted blue on white pearlware tea services were found at the Watkinson site (Dyson 1982:374). These cheap imitations of Canton porcelain appear to have been very popular among the upper middle class of the time, and likely were bought in large numbers to complement smaller, more expensive sets of export porcelain.

As judging by the ceramic assemblage of other middle-class merchants in Albany and in Middletown, Connecticut, Dean's household appears to be different than most, with the exception of Abraham Eights. Most of the assemblages in Middletown contain around 6 percent porcelain, while Dean and Eights had double that relative to other types of ceramic (12 percent). John Bogart's assemblage consisted of just 1 percent porcelain, despite tending to Dean's house and children during Dean's first trip to China between 1784 and 1785.

A review of Albany newspapers from about 1780 to 1810 suggests that the availability and "value" (Hodge 2006:4) of Chinese export porcelain slowly rose through time. The May 19, 1783, issue of the *New-York Gazetteer* featured a variety of advertisements from local merchants. Jacebus Wynkoop's was the only store that had "burnt china" for sale. No other merchants mentioned China or porcelain with the exception of Ivie Chambers who listed "European China," likely a reference to delft. Clearly, Chambers was drawing a keen distinction as not to mislead potential customers.

Within a decade, Chinese export porcelain became more prevalent in advertisements. Merchants Ten Eyck and Bleeker, two of the wealthiest individuals in the city, carried a "neat assortment of China which they will sell remarkably low for ready cash" (*Albany Gazette* 1794). In the August 3, 1795, issue of the *Albany Register*, three separate merchants, Daniel McEvers, Horner & James, and John Fondey, Jr., mentioned china in their advertisements. Overall the supply of Chinese export porcelain appears to be quite low relative to European ceramics. In 1796, Dudley Walsh

carried a stock of "a few sets of elegant table China" and three boxes of porcelain bowls, compared with 20 crates of "Earthen ware," likely creamware and pearlware (*Albany Register* 1796).

By the nineteenth century, John Fonney, Jr., and his partner Winne became the city's central distributor of ceramics. Their advertised supply of goods in 1806 included over 250 crates of assorted enameled (pearlware) and creamware, and just 50 boxes of assorted "China ware" (*Albany Register* 1806). Clearly from the end of the late eighteenth century to the nineteenth century there appear to be growing supplies of Chinese export porcelain, from a few sets to full boxes of items.

Also evident from newspaper advertisement is the fact that Dean is not the only supplier to the Albany market. Robert Henry, a local store merchant, consigned for 50 cases of porcelain including tea and table sets and "water plates" in the spring of 1798 (*Albany Gazette* 1798b). The next year, merchants E. & S. Brown received tea and a few table sets of porcelain from the "ship Besty's cargo, Capt. Edmund Fanning just arrived from Canton" (*Albany Sentinel* 1799). In that same year, Jacob Vander Heyden imported tea from Canton by the ship *Neptune*, not long after Dean's return aboard *Jenny (Albany Gazette* 1799).

The Albany newspapers indicate that consumers were in the market to buy Chinese tea, porcelain, and cloth. Merchants often used bold print or italics to draw attention to the words "teas" and "China." Prices of these goods likely remained out of reach for most Albanians, until the slowly increasing supply likely brought down prices.

A review of compiled estate inventories of Albany county residents, both rural and urban, from the late eighteenth century indicates how rare porcelain was in most homes (Nagle 1979). Households with porcelain were often fairly well-off. William Charles's estate in 1793 contained a full set of pewter tablewares along with a smaller assortment of earthenware dishes and plates. Although the Charles family owned a small number of silver utensils, no porcelain was listed in the inventory. Similarly, the houses of Samuel Barlow and William Dietz in 1794 contained pewter and earthenware table settings but no Chinese porcelain. Based on the other inventoried items, these were modest households with little wealth. By contrast, more wealthy families like that of John Duncan, Esquire, of Albany could afford a small assemblage of porcelain in the early 1790s. Enumerated within his estate were porcelain plates and five dishes, a teapot with silver spout, a large and small punch bowl, and soap dish. The porcelain was so prized by the family that they retained 12 broken "China" plates, perhaps mended so they could continue to be used.

Among the more wealthy families, porcelain tableware was more common. The inventory of Dr. Henry van Dyck's estate in 1788 listed 24 cups and saucers, 13 coffee cups, 12 plates, four bowls, and three pudding dishes, all porcelain. Despite the large amount of porcelain, there were still four dozen earthenware sets in the house along with pewter and wooden dishes (Nagle 1979).

One of the more telling of the inventories relates the contents of Jacob van Schaick's store and his home in 1788. The inventory for his store lists 27 sets of blue and white cups and saucers, 16 sets of "chocolate colored" saucers, 92 individual enameled pint bowls, and 30 blue and white bowls, presumably none of them porcelain. Porcelain items included just two bowls, one "burnt china" and the other "blue and white china." The van Schaick household, by contrast, utilized a whole suite of export porcelain, including two teapots, several large bowls, small plates and saucers, and "cangle cups," with an assortment of pewter, delftware, and other tablewares (Nagle 1979). The inventory suggests that porcelain, although not common in store inventories, was readily available to most middle-class merchants who kept a small assortment within their own households.

Stewart Dean earned a fair amount of wealth throughout the course of his lifetime. His successful trips to the Far East, along with his rental properties, allowed Dean to amass an impressive estate. According to the 1801 city tax rolls, Dean's personal estate (calculated separately from real estate) was assessed at £3,220. His friend John Bogart's personal estate was £1,402 and Abraham Eight's £1,652 (*Albany City Tax List* 1801). At this time, Dean was among the wealthiest of Albanians. Of the 855 assessed households, Dean's was among the top 3 percent of the city. This is not to suggest that Dean was among the elite of the Albany population, as individuals like Governor John Jay, John Taylor, John Maley, Stephen Lush, John Lansing Jr., Jeremiah Van Rensselaer, and John Stevenson, among others, were assessed at well over double Stewart Dean's assessment. Many other wealthy residents were situated just outside of the city limits and thus not subject to assessment.

Archaeologists have long grappled with correlating ceramics with social status, relative wealth, and class in the eighteenth century (see Baugher and Venables 1987), particularly following Miller's (1980) attempt to classify and scale various ceramic types. Unfortunately, the scale worked best in the nineteenth century, when there was a proliferation of different types of ceramics and when good data on pricing could be obtained. Chinese export porcelain has generally been attributed to households with the highest social standing, greatest wealth, or highest class throughout most of both

centuries. More recently, there has been criticism of this overly simplistic approach and doubt as to exactly how porcelain should be interpreted in an archaeological context (Orser 2002:487–488). Current analyses have focused less on ascribing status and more on trying to understand how artifacts convey social messages and can be imbued with social meaning. In this way, artifacts are not viewed simply as static items that reflect wealth or class, but as objects with a “mnemonic power” that conveys differing messages to various individuals at separate times (Loren and Beaudry 2006:267). Loren and Beaudry suggest that small artifacts, often overlooked, can provide important insights into how people in the past constructed and reconstructed their social identity.

The historical evidence from newspapers and inventories outlined above indicates many of Albany's upper class had porcelain in their households, despite the fact that it was relatively rare even after Dean's voyages. Further, Dean was not the only source for oriental goods and most Albanians of wealth and social standing appear to have had porcelain in their homes. So important was it to some, that porcelain might be kept in a house long after it was broken or otherwise unusable. Clearly Dean did not hesitate in discarding his broken porcelain wares. Based on this evidence, porcelain had a very different social meaning for Dean than others of his social cohort.

Consider, for example, Abraham Eights, Dean's neighbor. Dean and Eights apparently had similar assemblages of porcelain wares in terms of percentages and even types. To Eights, porcelain conveyed a higher social and economic standing to friends, clients, and associates. The porcelain that Eights likely obtained from Dean assisted with his efforts to create a new social identity for himself.

Eights, like many other Albanians, displayed his porcelain. By doing so, he devalued the social importance of porcelain for Dean. Since porcelain was part of many different Albany households, it became relatively unimpressive to those in the uppermost segments of society. In the process of social discourse, however, Dean utilized a small portion of his assemblage to in turn partially devalue Eights's assemblage.

The smaller, less-expensive items that Dean carried back with him from his voyages, as documented both in written accounts and in the archaeological record, possessed greater social “capital” for Dean than porcelain. The Asian sandware teapot, although relatively cheap, was every bit as important to Dean as porcelain in creating his new social identity, as too were the relatively small carved cricket cages. Similarly, the Prattware pitcher and Canadian Maritime bowls spoke to Dean's connections throughout the world. To others in the Albany community at the time, these were meaningless

and valueless trifles, but for Dean they served as important social markers that reflected his success as a sea captain and merchant. In the hands of Eights, these artifacts were little more than lifeless curios. But for Dean, who could provide a context for these items, they had social power used to impress clients, investors, and peers who knew little about them. Similarly, the French Rouen in Captain Magill's assemblage in Middletown, Connecticut (Dyson 1982), had greater social value for him than the economic value ascribed to it from the rest of the community. Eventually, as Magill fell into bankruptcy, the Rouen had little monetary or social value and it was discarded.

As Dean retired from the sea and largely left his mercantile business, these trifles became less important. Increasingly throughout the early nineteenth century, Americans enjoyed greater and greater access to the Chinese markets and these rare items appeared less and less interesting. In the move from the waterfront to a more fashionable neighborhood, Dean's household assemblage changed to follow suit. Dean was in the process of transforming his identity from a successful working sea captain to a legitimate and long-standing member of Albany's upper class. Concomitantly, the social value of the teapot, pitcher, and cricket cages changed. These small pieces of material culture did not impress those of higher social standing with whom Dean was trying to affiliate. Instead, his new country estate with orchards and gardens made a much greater statement. Unceremoniously, the teapot and cricket cases were tossed away with other scraps from the house. There was no attempt to mend these items—they had lost their value.

## CONCLUSION

The legend of Stewart Dean in Albany history is fairly well-known, but perhaps not well-told. The archaeological research conducted at his waterfront lot provides a unique glimpse into the life of Dean that is not possible through the historical record alone. Dean started out as a foreigner in Albany's insular social system. However, through his success as a working ship captain, Dean transformed himself into an aspiring entrepreneur by maximizing the potential of his waterfront property. The large archaeological features documented in excavations reflect Dean's ability to adapt to the changing economic conditions of the times. His later daring travel to China further propelled Dean from a small-time merchant/trader to an important local connection to the oriental market. His unique artifact assemblage contained direct evidence of his travels abroad and connections to famous people. These items had important

social value to Dean for a time during his career and assisted with his upward movement on the social ladder. Once he retired from sea travel and later from the mercantile business and assumed a position of respect and esteem within the upper class of Albany's social circles, these items were not as valued.

In discussing his rationale for traveling up the Hudson River on the *Experiment*, Hector St. John de Crevecoeur cites:

Several reasons led us to prefer this sloop to all those which were going up the river, particularly the beauty of its construction, the unusual size of its cabin, and above all the expectation that the conversation of Captain Dean, who had made a voyage to China in the same sloop would be very interesting . . . we were not mistaken. (de Crevecoeur 1937:7–8)

Similarly, the excavations conducted on Dean's property at the SUCE site were undertaken for numerous reasons and, like de Crevecoeur, we were not mistaken in this enterprise. The archaeological features and artifact assemblages associated with Dean document his rise to fame and fortune, and reveal how the exotic artifacts he collected were part of a complex social discourse that served him well for a period of time.

## ACKNOWLEDGMENTS

Thanks to Chuck Fisher for encouraging me to assemble this work, and for your friendship. Thanks also to Karen Hartgen and Bill Bouchard for the opportunity to be involved with great archaeology and even better archaeologists. I also appreciate the generosity of the Albany Institute of History & Art, New York State Museum, and Len F. Tantillo for image reproductions. Unless noted, all the other photographs and illustrations are courtesy of Hartgen Archeological Associates, Inc. I am grateful for all the assistance from many of my friends and coworkers at Hartgen, as well as my family. The archaeological excavations were funded and supported by the State University Construction Fund.

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## LIFE IN THE HOLLOW AND THE BOWERY: The Archaeology of Albany's Working Class

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Historical archaeology has the potential to refine and redefine the past. Historical archaeology's distinctive reading of material culture can complement and substantiate documentary evidence and in some cases lead to entirely new accounts of the past. This study demonstrates how historical archaeology can contribute to a more comprehensive history of cities by interpreting past material culture to bring a more intricate understanding to how different household demographics, economic strategies, and cultural practices of two similar groups of working-class people affected their day-to-day lives. Three key aspects of the investigations at two archaeological sites will be examined: historical landscape, spatial organization of the dwellings, and material culture.

The archaeology at two late-nineteenth-century working-class sites in two historically ethnic neighborhoods of Albany, New York, allows us the chance to compare the two largest immigrant groups in nineteenth-century Albany—the Irish and the Germans. Hartgen Archeological Associates, Inc. (HAA) completed data retrieval excavations at the Sheridan Hollow site and the Monrain site in 2004 and 2006, respectively (DiVirgilio et al. 2005, McQuinn et al. 2008). The two sites were separated by slightly less than 1 mile in the North End of Albany, an area bounded by Central Avenue on the south and the city limits on the north (Figure 10.1). The Sheridan Hollow site was located in a predominantly working-class Irish neighborhood where nineteenth-century dwellings once stood at 110–116 Sheridan Avenue. The Monrain site at 253 Sherman Street is associated with the occupation of one working-class German-American family from the last quarter of the nineteenth century to the first quarter of the twentieth century.

Recently, urban historians and historical archaeologists have probed modern perceptions of historical immigrant working-class neighborhoods and have found them flawed. Understanding that the past is a construction is implicit in most of the recent critiques of past definitions and preconceptions of working-class neighborhoods. Rebecca Yamin states in the introduction

to the report on the Five Points archaeological site excavations in New York City, "our knowledge is always partial and always dependent on the questions posed" (Yamin 2000:11). In recent decades, historians and archaeologists have started to question the stereotypes and definitions of nineteenth-century immigrant neighborhoods. In the past, historians have constructed representations of the nineteenth-century urban environment from white middle-class reformers' accounts, newspaper reports, academics, and government reports. These reconstructions excluded almost any source from within the working-class neighborhoods (Mayne and Murray 2001:3). In this, historians were merely perpetuating the myths and misconceptions from descriptions by outsiders of the slums because they did not attempt to understand the context of these historical writings.

In reconstructing history, historical archaeology gives an active voice to the people who may have been ignored in the written historical record. Interpretation of archaeological data through a cultural and historical context discounts the historical generalizations of these neighborhoods and provides a more intricate understanding of the complex relationships and strategies the average working-class household faced on an everyday basis.

Disparate stories about how the lives of two contemporaneous and socioeconomically similar groups of people living in the same city differed were revealed by the investigations at each site. Although the residents of both sites were members of the growing immigrant working class, the cultural, economic, and physical aspects of life for the residents of each site differed. This in turn affected materialities and mentalities of people's lives. To assume that the occupants of both sites were members of one immigrant working class in the city of Albany in the late nineteenth century is a naïve overgeneralization. Class is not an objective category that can be defined by individual attributes, such as occupation, economic wealth, education, or ethnicity. Class is a cultural and social formation that happens when people

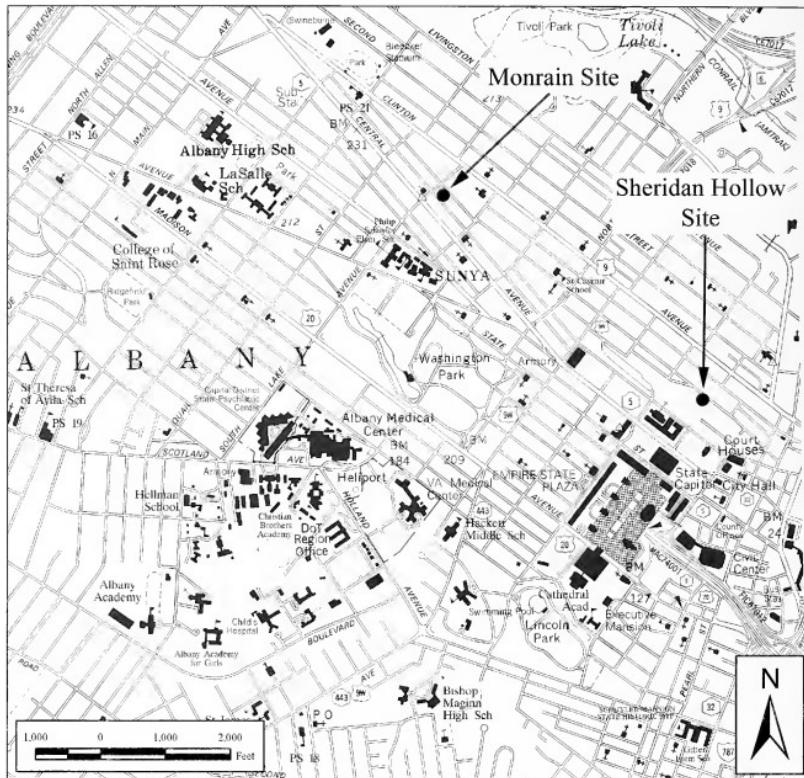


Figure 10.1. 1993 NYSDOT Albany 7.5 minute quadrangle depicting the locations of the Monrain site and Sheridan Hollow site.

of common experiences connect to express their interests among themselves, and most importantly, to connect in opposition to others whose interests are different from their own (Thompson 1963:9). Since class "happens" as a result of relations between people as they live through history, there is no sort of social blueprint that can predict the form it will take in a particular historical or cultural context. Class exists only as a set of social relations that are "historically constituted, fluid, and constantly changing" (Wurst 1999:9).

The importance of this distinction allows archaeologists to formulate a better understanding of the lived experiences of the past. Particular aspects of the material culture recovered from the Sheridan Hollow and

Monrain sites provide an expression of the lifestyle, values, and health of the residents. These aspects of the findings from the two sites will be compared, to demonstrate how and why the experiences of two groups of people differed.

Many archaeologists have attempted to examine the effect of ethnicity on household consumption patterns. This will not be the focus of this study. The identification of ethnicity in the archaeological record has relied on a simplified view of ethnic groups as homogenous, bounded historical categories. Attempts at identifying ethnic markers or boundaries between groups in the material record have failed to define distinct assemblages or frequency distributions associated with

different ethnic backgrounds (Baugher 1982; Cheek and Friedlander 1990). Archaeologists have identified disparities between deposits created by different groups of people, but no distinct pattern has been associated with any particular ethnic group. Rather than being solely due to ethnicity, any number of other differing economic, social, local, or temporal factors may have caused differences in the archaeological assemblages. Even so, ethnicity may have influenced a very narrow range of acquisitions such as tobacco pipes emblazoned with political messages such as "Home Rule," a Irish slogan proclaiming Ireland's desire for self-government, or other ethnic associative imagery (cabbage head, Irish harp, etc. [Reckner 2000:110]).

The social and economic differences between residents of the Sheridan Hollow and Monrain site, are better understood within the historical context of these two sites in nineteenth-century Albany. The historical context provides a canvas of the nineteenth-century city of Albany to support interpretations and better understand the context in which residents used and discarded their material culture. Urban archaeological contexts are often a complex multi-dimensional web of layered and cross-cut features created by multiple, different households over a long period. Some of the most difficult and important work necessary for the typical urban archaeological investigation is linking the former residents with the deposits they created. This matching of archaeological contexts with the people who made them serves as a basis for the analysis and comparisons to follow.

## CONTEXT

### The Historical Setting: Nineteenth-Century Albany

In the second half of the nineteenth century, millions of Europeans immigrated to the United States after suffering through crop failures, economic depression, and decreasing land availability that left many people hungry, unemployed, and economically poor. Young adult unskilled laborers made up the largest group of immigrants (Hatton and Williamson 1994:535). They arrived at major urban centers in the United States searching for employment in the rapidly expanding manufacturing industries. Of the hundreds of thousands of immigrants who arrived in the ports of New York City each year in the second half of the nineteenth century, many settled in New York City and many more set out to other urban centers or in search of farmland in the interior of the nation. Immigrants attracted by the promise of employment in the burgeoning industries of upstate New York traveled up the Hudson River to Albany.

Albany's population dramatically expanded during the course of the nineteenth century, more than doubling between 1830 and 1860 from 24,238 to 62,367 people (Weise 1884:514). Most of this growth was due to the heavy influx of immigrants into the city. Foreign-born residents made up between 19 and 40 percent of the city's population in the second half of the nineteenth century (Reimer 1988:119). The city's capacity to absorb so many newcomers was made possible by a vast expansion of commerce and the development of its industrial base. In the 1820s, the construction of the Erie and Champlain canals and the Albany Basin, which could accommodate 1,000 canal boats, placed Albany on the principal trade route to regions to the north and west (Rowley 1967:54–55). A bustling trade in lumber, iron ore, livestock, and agriculture goods developed. After the 1830s, Albany also developed a number of successful manufacturing industries. The city's position as a commercial hub provided the local manufacturing sector with ready availability to raw materials and wide distribution of its finished products. Iron ore from the Adirondack region supplied the stove foundries, and grain from the west was used in the city's massive breweries. In the mid-nineteenth century, the railroads further expanded the city's trade (Reimer 1988:65).

The construction of the Erie Canal starting in 1822 attracted the first large wave of Irish immigrants to upstate New York. Newspapers carried job notices for laborers to work on the canal. In 1822, the *New York Statesman and Advertiser* announced, "five hundred laborers are wanted on the Canal through the Cayuga marshes. Good hands will obtain from 12 to 15 dollars per month" (Rowley 1967:145). The Irish who responded to these calls for laborers came more often from Canada along the Champlain Canal route than from New York City (Rowley 1967:145–146). Anne Royall, a visitor to Albany, observed that "the flood [of Irish] pours down the northern canal from Canada . . . They appear feeble and very much sunburnt" upon arrival in Albany (Royall quoted in Rowley 1967:147). During periods of winter unemployment, some Irish canal laborers moved into Albany and began to crowd into the Albany Almshouse as well as tenements, boarding houses, and shanties on the edge of the city (Rowley 1967:146). By the time that the Erie Canal was completed in 1825, there were as many as 50,000 Irish laborers scattered across upstate New York, concentrated near the canal ports of Buffalo, Rochester, Syracuse, and Albany (Byron 1999:29).

Between 1845 and 1900, Albany attracted about 21,000 foreign-born immigrants per year (Reimer 1988:119). By 1880, foreign-born workers formed half of Albany's workforce, mostly in service and manual employment. By 1890, the immigrants and their native-

born children formed about two-thirds of the city's workforce (Reimer 1988:124–126). The Irish comprised Albany's largest immigrant group by the second half of the nineteenth century, encompassing about 30 percent of the total population, and large Irish communities developed in areas of the city (Reimer 1988:25). Germans were the second largest ethnic group in Albany behind the Irish, comprising between 2.7 percent and 9 percent of the total population of Albany between 1845 and 1900 (Reimer 1988:120).

Many of these immigrants sought out employment and living quarters where their native language was spoken. Ethnic enclaves of Irish, German, Polish, Italian, and other immigrants developed in Albany in the nineteenth century (White 2005:18–19). These enclaves were self-reliant communities with ethnic churches, shops, and other businesses. Old world customs and native languages flourished in these communities (White 2005:18). Most major urban areas in the United States developed similarly divided enclaves of poor, working-class, and foreign-born residents. Contemporary descriptions of these communities characterized them as concentrated slums rife with poverty, social disorder, and unpleasant and unhealthy living environment. Social reformers and affluent outsiders often faulted the residents of these neighborhoods themselves for causing their own impoverishment and disease. Slums were also pointed to as the source of epidemics and social disorder in cities (Ward 1989:16). In particular, the Five Points neighborhood in New York City is an infamous symbol of nineteenth-century immigrant slum conditions.

Contemporary nineteenth-century perceptions of Albany's Irish and German working-class neighborhoods did not differ much from the common stereotypes. Being at the bottom of a poorly drained ravine on Albany's North End predisposed Sheridan Hollow to poor drainage and living conditions from the start. Sheridan Hollow was a predominantly Irish neighborhood throughout the nineteenth and early twentieth century, concentrated around St. Mary's Roman Catholic Church on the corner of Pine and Chapel Streets (Rowley 1967:269). It was characterized as the poorest neighborhood in Albany where gangs of roughs were known to patrol the streets (Kennedy 1983:20). Name changes made to the street, from Fox Street to Canal Street, and ultimately to Sheridan Avenue were attempts to re-cast the area into something new and, as such, are indicative of the negative public perception of the neighborhood (DiVirgilio et al. 2005:33). Author William Kennedy chronicled this neighborhood in his popular history *O Albany!*, calling it by its second mid-twentieth-century name, Gander Bay. The name derived from the geese kept by the residents, which

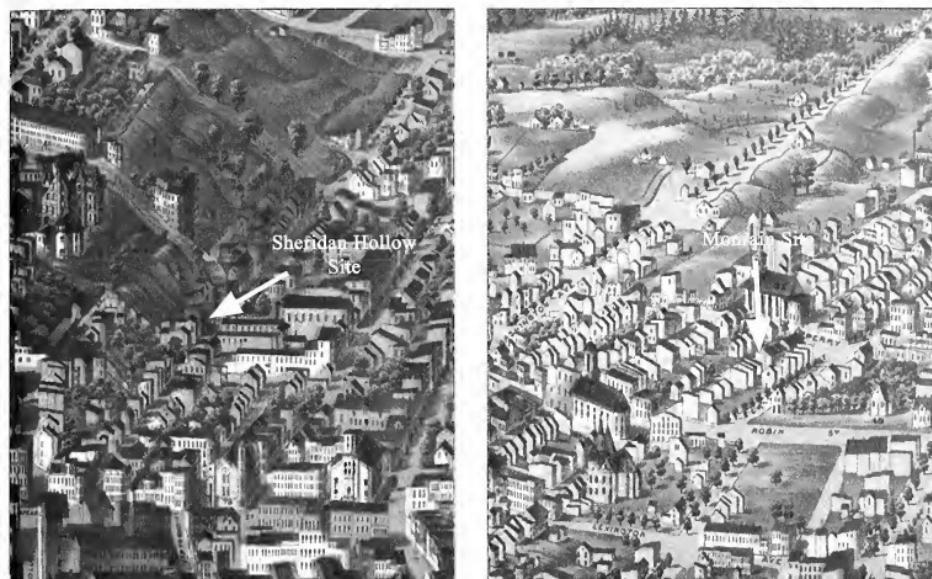
congregated around the pools of stagnant water that collected in the street. The nickname was commemorated in a song: "It's Gander Bay, good old Gander Bay, where George Gilmore's geese did the rhumba every day" (Kennedy 1983:47).

The Bowery neighborhood where the Monrain site is located is in one of the three distinct areas of Albany where Germans settled (White 2005:248). None of the neighborhoods were as notorious as Sheridan Hollow, however native-born Albanians were still somewhat wary of Germans' tightly knit and highly concentrated communities. By the end of the century, the formerly concentrated Irish wards in the city only held half of the Irish population in Albany, whereas, German neighborhoods held almost 75 percent of Albany's German-born (Reimer 1988:31). From the 1840s to 1920, German Americans were distrusted because of their separatist social structure, their opposition to prohibition, their attachment to their native tongue over English, and their neutrality in World War I (White 2005).

### The Sheridan Hollow Site and Its Residents

The Sheridan Hollow archeological site included deposits associated with nineteenth-century house lots at 112, 114, and 116 Sheridan Avenue between Hawk and Swan Streets in Albany (Figure 10.1 and Figure 10.2). The nineteenth-century dwellings had been removed in the 1940s for the construction of a New York State Office of General Services ash processing plant and garage. Archaeologists completed a data retrieval excavation on the Sheridan Hollow site in 2005 as part of the mitigation for a new parking garage (DiVirgilio et al. 2005). Excavations in the Sheridan Hollow site entailed the investigation of mid-nineteenth- to early twentieth-century architectural remains and backyard deposits from 112, 114, and 116 Sheridan Avenue, including seven privies, one cistern, and several drains and pipes. The remains of 110 Sheridan Avenue were destroyed by the construction of the OGS garage in the 1940s.

Throughout most of the period of study, the resident families of the Sheridan Hollow site were mostly of Irish descent. All of the residents at 112 and 114 Sheridan Avenue were tenant-occupants. Samuel Pruyn, a prosperous merchant, constructed the buildings at 112 and 114 Sheridan Avenue between about 1839 and 1841 as single-family dwellings (ACHOR 1840, 1841). However, shortly after their construction, the city was faced with a shortage of inexpensive housing for the expanding immigrant laboring class. Pruyn began to let the dwellings to between four and six families at a time around 1850 (DiVirgilio et al. 2005:42). The dwelling at 116 Sheridan Avenue was owner-occupied until 1861, when it was transferred to an absentee



**Figure 10.2.** Sections from the 1879 Beck & Pauli *Birdseye View of Albany* showing the Sheridan Hollow site in the panel on the left and the Monrain site on the right.

owner who rented it out to between two and five families at a time (DiVirgilio et al. 2005:40). Around the mid-century, it was so crowded at 112 and 114 Sheridan Avenue that hall spaces and common areas were likely pressed into serving as sleeping quarters. Between 1850 and 1900, between five and 26 individuals lived in each single-family dwelling at the site (DiVirgilio et al. 2005:42).

A moderate degree of transience characterized residents' average stays, which varied from less than six months to 13 years. Perhaps a better demonstration of the low rate of residential stability in Sheridan Hollow is that almost 500 different individuals were recorded living at this location in the census population schedules and city directories between 1850 and 1930 (DiVirgilio et al. 2005:41). A similarly high degree of geographic transience characterized working-class populations within most nineteenth-century urban centers (Griffen and Griffen 1978:21, Threnstrom 1973:232, Scherzer 1992:21).

The tenants of the Sheridan Hollow site were mostly nuclear families, some of which also brought in boarders

and extended family members. The most common occupation among the adult male residents was that of laborer (DiVirgilio et al. 2005:45). This was a nineteenth-century term for unskilled general manual worker and was one of the most commonly listed professions and typically also one of the lowest paid occupations. A high degree of transience also characterized this occupation. The income of the average unskilled laborer in the second half of the nineteenth century was typically below or just at the minimum subsistence level of a four-person family (Walkowitz 1978:104). Laborers were engaged in unskilled employment for any number of manufacturers or services in the city, from an iron foundry to a commercial laundry. Most of the women tenants did not have employment outside the home, however, census records do not indicate if women brought work such as sewing or laundry into the home. This was a typical way for working-class wives to contribute to the family income (Hoy 1995:18). The census records only reflect most of the female tenants as "keeping house" or "at home," a term specifically reserved for women keeping house for their own families or for

themselves and not receiving wages for their service (U.S. Census Bureau 2002:16). Despite the low socioeconomic status of the neighborhood, 64 percent of the children from six to 18 years old were reported as attending school between 1850 and 1900 (DiVirgilio et al. 2005:45).

### The Monrain Site

The Monrain site was located at 253 Sherman Street just east of North Lake Avenue and one block north of Central Avenue (Figure 10.1). The site was occupied from the late 1860s until 2005. HAA completed a data retrieval investigation of the site in 2006 as part of the mitigation for a proposed elementary school (McQuinn et al. 2008). Archaeologists uncovered an intact sheet midden, a wood-lined privy, drains, and utility trenches in the backyard. All of the deposits date from the 1870s to the early twentieth century when the family of Peter and Otilia Monrain occupied the site. Although it had been cosmetically altered several times in its history, a physical assessment and conceptual reconstruction of the extant dwelling at 253 Sherman Street by architectural historian Walter R. Wheeler provided information on the past uses, structure, and aesthetics of the dwelling.

The Monrain site is located in an area called the West Hill neighborhood today. The neighborhood first developed around the early nineteenth century with the commerce and transportation industry fostered by the Albany-Schenectady Turnpike, later known as the Bowery, and eventually as Central Avenue (LoRusso 1993:28). The area remained somewhat pastoral and relatively undeveloped until around the 1850s. Between the 1850s and 1870s this area developed into a dense residential area of German-American families attracted to the employment opportunities presented by the stove and iron foundries and other industrial shops developing between Western Avenue and Clinton Avenue on the western edge of the city. The West Hill neighborhood came to be known as Cabbagetown, because of the concentration of German immigrants around the areas of Central Avenue, Sherman Street, and Elk Street in the second half of the nineteenth century (White 2005:23).

Peter and Otilia Monrain, and later their children, were owner-occupants of the site from 1873 to 1969 (ANCHOR 1872, ACCO 1969). The Monrain household varied from four to nine persons between 1875 and 1930. The Monrain house remained a single-family household during almost all of the family's occupation of the site, except for around the turn of the century when one of the married Monrain children moved back into the house with her husband and the house was

casually separated into two units (U.S. Bureau of the Census 1870, 1880, 1900, 1910, 1920, 1930). The Monrain family did not bring in non-familial boarders, and lived only as a nuclear household. Typically, German families were more likely to reside in single-family homes and less likely to permit boarders than other groups. Between 1850 and 1905 the proportion of German families living in single-family homes rose from an already notable 37 percent to 51 percent in the city of Albany (White 2005:19–20).

Peter Monrain emigrated from Prussia to the United States in 1865. He married Otilia, the native-born daughter of Bavarian parents, in 1868. Together they had 12 children between 1870 and 1890, of which only five sons and three daughters survived to adulthood (U.S. Bureau of the Census 1910).

Peter Monrain was a stove moulder. Stove moulding was a skilled profession earning an annual income that ranged from meeting the level of subsistence to two to four times more than the average cost for a family of four or six to procure just enough food, clothing, housing, and fuel for survival (Walkowitz 1978:104). Peter may have worked in one of the several nineteenth-century stove manufacturers in Albany located about 1 mile northeast of the Bowery neighborhood along the New York Central Railroad near the northern boundary of the city (Hopkins 1876).

Otilia Monrain did not work outside of the home. This was typical for most German women, who viewed the home-domestic life and maternal duties as important components of the community (White 2005:34). All of the Monrain children attended school until around the age of 15. At that age, most of the sons obtained jobs as clerks or machine operators and continued to live at home until after marriage. Two of the Monrain daughters worked as a dressmaker and a seamstress (New York State Census 1905, 1915; U.S. Bureau of the Census 1880, 1900, 1910, 1920).

## THE ARCHAEOLOGY

### Historical Landscape

Historical research and archaeology at each of these sites revealed information about the historical landscape of each property. The cultural landscape of domestic sites is an important component for understanding how residents interacted with and managed the surrounding environment. Human actions created urban space, such as the streets, hills, and houses that surround the Sheridan Hollow and Monrain sites, and, in turn, people were also influenced, motivated, or

constrained by their surroundings. The following discussion will explore three themes addressing residents' interactions with the surrounding historical landscape: drainage, backyard use, and intestinal parasites.

#### Drainage

Sheridan Hollow had the lowest average assessment value in the city, although this likely reflected the undesirability of the location as much as the quality and size of the buildings (ANCHOR 1851, 1890). This area was historically a densely populated working-class immigrant neighborhood located at the bottom of a steep ravine. Sheridan Hollow is the early twentieth-century name given to the ravine near the northern boundary of Albany carved out by the Fox Creek, which historically emptied into the Hudson near the present-day location of the New York State Department of Environmental Conservation office building on Broadway in downtown Albany. The undesirable physical attributes made the hollow one of the few housing destinations available to Albany's poorest working class. The combination of steep topography, poor drainage, insufficient infrastructure, and cheap housing led many of the city's disadvantaged to settle an area that was generally avoided. Pools of stagnant water were known to collect in the middle of Sheridan Avenue due to poor drainage and the situation of the site in the hollow at the bottom of a steep hill (Kennedy 1983:47). In addition to these drainage problems, residents of Sheridan Hollow fought a daily battle with raw sewage in the streets and waterways from non-existent, faulty, and overflowing sewers that contaminated water supplies throughout the nineteenth century (DiVirgilio et al. 2005:38).

Sheridan Hollow residents also had to contend with drainage problems literally in their own backyards. The dwellings in the site fronted along the south edge of Sheridan Avenue. The lots extended from Sheridan Avenue south up the hill toward Elk Street. Based on historical and archaeological evidence, it was likely that the steep downward slope near the south end of the site extended to the backside of the dwellings at 112 and 114 Sheridan Avenue. This slope may have caused the residents significant drainage problems since their privies in the backyard may have sat higher than the house itself. The earliest privy behind 112 and 114 Sheridan Avenue, probably constructed at the same time as the dwellings themselves, was a circular brick vault only 11.3 m (37 ft) south of the rear wall of the house. A wooden box privy vault built about 9.45 m (31 ft) from the house followed the abandonment of the circular brick privy. The latest privies, near the rear of the house, were converted to water closets in the twentieth century. A complex network of drains was in place to catch

liquid overflow from the outhouses. These drains likely led to the Fox Creek culvert in Sheridan Avenue.

There were early attempts to rework the streams coursing through Albany's center into sewers. Two archaeologically documented examples include the mortared stone culverts in Maiden Lane (1788) and the Fox Creek east of Broadway (1841), both of which were fed by drains from the neighboring properties (ACC 1788:30; Rosenswig 2002:8.14; HAA 2002a:60). The portion of the Fox Creek sewer near the project area was constructed ca. 1833, as a precursor to residential development (Hooker 1833). The stream was enclosed in a culvert and buried, creating a flat area at the bottom of the ravine. In 1866, the Street Superintendent was ordered to have the sewer "thoroughly examined, cleansed and repaired, from its commencement west of Swan [Street] to the Albany Basin" (ACC 1867:310). The Fox Creek sewer did not continue west beyond Swan Street until 1878 when it was extended to Lark Street. The new section was constructed of brick and cement (ACC 1878:481). In 1889, the Street Commissioner was ordered to have the Fox Creek sewer inspected and, if necessary, cleaned (ACC 1890:351). A decade later, the sewer was repaired (ACC 1900:498–499).

This shows that the Sheridan Hollow site potentially had access to a sewerage system at the time the dwellings were constructed, ca. 1839–1841. Indeed, the earliest privies behind 112 and 114 Sheridan Avenue (Features 4 and 3) were constructed with drains leading toward the sewer mains in the street. These drains likely only collected liquid overflow since the opening was situated near the top of the vault. Neither was a flushing privy, since there was no evidence of an inlet to charge the vault with water for flushing.

The Monrain site was located in a relatively well-drained, elevated, topographically flat area on the nineteenth-century outskirts of the city. This area did not become densely populated until the late nineteenth century (LoRusso 1993:28). However, by the end of the 1860s, most of the West Hill neighborhood had municipal sewer mains installed. The section of Sherman Street in front of the Monrain site had its sewer main installed between 1864 and 1866 (ACC 1904:398).

A single wood-lined privy vault in the northeast corner of the backyard about 20 feet north of the rear of the house was the only privy uncovered in the lot. The Monrains used this privy for the first two decades of their residency from 1873 to c. 1898, despite the availability of public sewers at the time the Monrains began living at 253 Sherman Street. Part of this delay may have been the prohibitive cost of installing a water closet and indoor plumbing, or perhaps a misunderstanding of the changes needed to implement better sanitation (Tomes

1998:54). A wooden drain in the west wall of the privy likely served to stop fluid overflow of the vault during heavy rains or snowmelt. This drain connected to a ceramic tile drain that extended from the backyard out to Sherman Street. The overflow drain may have connected to the sewer main in the street. The *terminus post quem* of artifacts associated with a repair trench for the drain indicated that the Monrains had attempted to repair the drain and replace it with a ceramic tile drain sometime in the 1890s. The wood-lined vault walls were relatively intact with little evidence of collapse or repair, indicating that the vault was cleaned out regularly and maintained by its owners. The *terminus post quem* of artifacts from the privy fill indicate that it was filled and abandoned around 1898. Around this time, the Monrains may have converted the privy superstructure to a water closet or installed indoor sewage plumbing in the house.

Since the Monrains were owner-occupants of their house, they retained more control over the management of their backyard drainage and sewage than the Sheridan Hollow tenants did. However, their choice to maintain the use of a privy rather than convert to indoor plumbing demonstrates that economic means was not the only influence on sanitation practices.

#### **Backyard Use**

Poor drainage is only one problem Sheridan Hollow residents had to endure. Archaeological evidence indicates that the backyard areas were littered with rubbish. Evidence from the floral analysis suggests that neither grass nor weeds grew in the backyards of the dwellings in the nineteenth century. No pollen analysis was conducted for the Sheridan Hollow site. Faunal bones from every context in the site had gnawed marks from rodents or other animals. Bone remains of brown rats were also recovered from some of the privies, indicating that rats and other rodents may have infested the homes, backyards, and alleyways throughout this section of Albany. The gnawed bones also indicate that food waste may have sat out in the open for some time before it was deposited in the privies, suggesting that rubbish was piled or strewn in the backyards. A buildup of rubbish attracted rodents, and rodents carried disease.

The Monrains' backyard had a moderately dense sheet midden as evidenced by the hundreds of broken dishes, bones, nails, window glass, and tobacco pipe pieces recovered. However, the floral remains from the privy nightsoil also portrayed a yard with grass, weeds, trees, and, perhaps, decorative plants. Pollen remains had a high concentration of grass and ragweed pollen, confirming that ground cover grew in the backyard. Elm and chestnut pollen dominate the arboreal pollen types, indicating that these trees probably grew nearby. Other

tree pollens present included elm, oak, pine, willow, and alder. Decorative plants such as roses and lilies may have also been growing nearby. In addition, concentrations of pine needles and clover seeds were recovered from the Monrain nightsoil deposits. Both plants are not typically consumed by humans, therefore may have been manually deposited in the privy. Pasture-grazing livestock typically consume large quantities of clover, but it also grows readily in backyards or anywhere its seeds are planted.

If there was a significant buildup of rubbish in the Monrain backyard, it probably would have attracted rodents, as happened at the Sheridan Hollow site. However, no evidence of rodent gnawing was identified on any of the faunal bone in the Monrain assemblage. The absence of gnawed bones indicates that there likely was not as bad a rodent problem in this area as in Sheridan Hollow. It also indicates that food waste must not have lain out in the open before it was deposited in the privy. The tiny bones of a few mice were noted in nightsoil samples from the Monrain privy. Considering the absence of rodent gnaw marks or other rodent bones in any of the deposits, these small bones may be the remains of burrowing rodents from after the abandonment of the privy, or of a small dead rodent discarded in the privy.

Trash accumulation and removal in nineteenth-century urban areas was troublesome. The poor tenement districts of large cities seemed to pile up more trash than middle-class neighborhoods. Most of this was due to less space to store trash and lack of money to pay a private rubbish hauler as most middle-class households did (Strasser 1999:136–137). As a result, residents defaulted to disposing of their trash wherever was possible, including the backyard and privy vaults. Many cities had trouble with rubbish clogging municipal mains and damaging drains, which is why by the late nineteenth century many cities prohibited the deposition of rubbish in privy vaults. In 1872, the City of Albany passed just such a law prohibiting any deposition of household refuse in a privy vault (ACC 1872:95). Considering the high artifact density of all of the privy vaults at the Sheridan Hollow and Monrain sites, it is not clear how closely this law was followed or even how well it was enforced.

#### **Intestinal Parasites**

One of the many health hazards of urban life in the late eighteenth and nineteenth centuries was fecal-borne disease. Epidemics became common in most cities in the nineteenth century and were often caused by overcrowding and inadequate sanitation. Cholera, typhoid, and dysentery are transmitted by the ingestion of food, water, or contact with surfaces that have

been contaminated by the feces of an infected person (CDC 2008). No physical evidence of these diseases remains from the bacteria and microorganisms that caused them. However, the presence or absence of intestinal parasite eggs, or evidence of other fecal-borne pathogens that also plagued nineteenth-century cities, are indirect evidence of the poor sanitation that encouraged a similar transmission of the disease agents (Reinhard 1994:62).

Analysis of parasite data depicts how the living conditions, especially drainage and access to public utilities, affected the health of site residents. Karl Reinhard, an archaeologist and paleopathologist from the University of Nevada, has pioneered techniques for processing privy soil samples and then identifying and quantifying intestinal parasite eggs in the samples (Reinhard 1994; Warnock and Reinhard 1992). Nightsoil analyses from recent archaeological excavations at urban historic archaeological sites in the Northeast have revealed that city residents were afflicted, perhaps sometimes severely, with intestinal parasites, especially *Ascaris lumbricoides* (roundworm) and *Trichuris trichiura* (human whipworm) (Beaudry et al. 1991; Fisher et al. 2007; Mrozowski et al. 1996; Reinhard 1994).

Soil samples taken from privies dating from the late eighteenth and early nineteenth centuries contain the highest concentrations of parasite eggs. Evidence from the several sites indicates that sanitation measures were improving toward the end of the nineteenth century, as lower concentrations of parasites typically characterize contexts from the period (Fisher et al. 2007:190). The parasite concentration in soil samples taken from six eighteenth- and nineteenth-century urban domestic archaeological sites in Albany and one mid- to late-nineteenth-century site in Troy demonstrate this pattern of decline in parasite infection during the course of the nineteenth century (Table 10.1). The highest concentration of *Ascaris* peaked at a 223,248 eggs per milliliter of sediment from a wood-lined privy dated to 1785 at the Department of Environmental Conservation Headquarters site at 625 Broadway Albany, New York. The average concentration of *Ascaris* eggs recovered from late-eighteenth-century privies in Albany was 75,089 eggs/ml of soil (Table 10.2). This concentration demonstrates that parasites posed a significant health problem for early Albany residents.

By the mid-nineteenth century, the average *Ascaris* concentration in Albany privies was 16,385 eggs/ml (Table 10.2). By this time, some strides had been made toward improving sanitation in Albany. The level of infection continued to decline rapidly after 1850. By the end of the nineteenth century, the average egg concentration was almost 400 times less than it had been a century earlier.

The seven sites in Tables 10.1 and Table 10.2 also represent the two opposite ends of the social spectrum. Deposits from the downtown Albany sites (SUCF, DEC, Quackenbush Square, and 40 Howard Street) were associated with middle- and upper-class families of merchants and manufacturers. The College Avenue site, Sheridan Hollow site, and Monrain site are three of the few working-class sites excavated in the Albany and Troy area. The temporal division between earlier upper-class sites and the later working-class sites is less than desirable. However, the data still illustrate the important point that parasite infection was ubiquitous in the eighteenth and first three quarters of the nineteenth century. Soil samples taken from privies dating from the early- to mid-nineteenth century contain the highest average concentration of parasite eggs, and the concentrations decline from the middle of the nineteenth century to the early twentieth century (Table 10.2).

*Ascaris* is usually the most common parasite found in historic sites. *Ascaris* worms are the largest round-worm parasites that infect human beings. Adult worms live in the lumen of the small intestine. Adult female *Ascaris* are larger than the males and reach from 20 to 35 cm (7.9 to 13.8 in) long. Adult males measure between 15 and 30 cm (5.9 and 11.8 in) long. A female *Ascaris* produces approximately 200,000 eggs per day. Fertilized eggs mature and become infective after 18 days to several weeks. The eggs pass with feces, can contaminate soil and water, and are usually ingested by humans by eating unwashed food, eating without washing one's hands, and eating or drinking contaminated food or water. In the small intestine, the larvae hatch from the eggs and burrow through the intestinal wall to make their way to the lungs where they will mature further. From the lung walls, they ascend the throat and are swallowed back to the stomach. Once swallowed, they reach the intestines and develop into adult worms in approximately two to three months. Adult female worms lay eggs that are passed in feces and the cycle continues. Adult worms can live in the intestine for one to two years and then the dead worms are defecated (CDC 2008).

Most people with *Ascaris* infection have few noticeable symptoms, and an infection is not a major health threat. The worms' migration through the lungs may cause some breathing difficulty, which can lead to death. A heavy infection may cause some abdominal pain and a very heavy infection can cause intestinal blockage. Children are the most affected as *Ascaris* may cause slower growth, slower weight gain, and acute intestinal pain. Often, those infected may not become aware of the parasite until the dead worm is defecated (CDC 2008). However, the importance of *Ascaris* concentrations is that the infective eggs are

**Table 10.1.** Concentration of *Ascaris* Eggs per ml of Nightsoil from Seven Archaeological Sites in Albany and One Site in Troy, New York.

Provenience	Feature Number	Date	<i>Ascaris</i> eggs/ml
<b>Downtown Albany Sites</b>			
DEC Headquarters, barrel privy	42	1741	0
SUCF, Albany Stockade ground surface	Unit 1.9 Level 2	1759	2,019
DEC Headquarters, wood-lined privy	126	1785	223,248
DEC Headquarters, wood-lined privy	96	1797	89,675
SUCF, wood-lined privy	38	1800	5,150
DEC Headquarters, wood-lined privy	112	1800	62,710
SUCF, stone-lined privy	Unit 6.4, Level 9	1810	25,199
Quackenbush square, barrel privy	76	1830	38,947
Quackenbush square, barrel privy	107	1830	31,607
DEC Headquarters, wood-lined privy	113	1831	251
Howard Street, stone-lined privy	5	1850	33,561
DEC Headquarters, stone-lined privy	147	1850	1,026
DEC Headquarters, stone-lined privy	108	1851	1,505
DEC Headquarters, brick and stone privy	40	1856	448
SUCF, wood-lined privy	31	1860	2,260
DEC Headquarters, wood-lined privy	122	1860	228
<b>College Avenue Site, Troy</b>			
69 College Avenue, wood-lined privy	40	1864	39
69 College Avenue, wood-lined privy	38	1881	0
77 College Avenue, wood-lined privy	74	1884	190
89 College Avenue, wood-lined privy	1	1885	777
71 College Avenue, wood-lined privy	75	1895	97
87 College Avenue, wood-lined privy	26	1896	0
75 College Avenue, stone-lined privy	72	1903	746
<b>Sheridan Hollow Site, Albany</b>			
Wood-lined privy	7	1845	2,750
Wooden barrel privy	8	1850	6,550
Wood-lined privy	6	1864	5,250
Wood cistern	11	1864	50
Brick-lined privy	4	1870	6,400
Wood-lined privy	3	1903	100
Concrete privy	10	1903	0
Wood-lined privy	2	1921	0
<b>Monrain Site</b>			
Wood-lined privy	201	1898	100

Information for table obtained from DiVirgilio et al. (2005); HAA, Inc. (2002b, 2002c, 2004, 2005); and McQuinn et al. (2008).

transmitted through the same vectors as other more deadly fecal-borne pathogens, namely diseases such as cholera, typhoid, and dysentery.

Nightsoil samples from the Monrain privy contained only *Ascaris* eggs, in relatively low concentrations. No other human or non-human parasites were

observed. An average of 100 *Ascaris* eggs per milliliter characterized the nightsoil samples from the Monrain privy. In comparison, a wide variety of parasite taxa was found in the Sheridan Hollow privies (Table 10.3). These included mostly *Ascaris lumbricoides* and *Trichuris trichiura*, and also *Taenid cestodes* (human

**Table 10.2.** Average Number of *Ascaris* Eggs per ml of Sediment for the Years 1741–1921, Taken from Table 10.1.

Year Range	1760–1790	1791–1820	1821–1850	1851–1880	1880–1921
Average <i>Ascaris</i> eggs/ml of sediment	75,089	45,684	16,385	2,096	201

**Table 10.3.** Concentrations of Three Types of Intestinal Parasite Eggs in the Privies at the Sheridan Hollow Site and the Monrain Site.

Site	Feature	Feature Type	Date	Human Parasites (eggs per milliliter of soil)		
				<i>Ascaris</i> (human roundworm)	<i>Trichuris trichiura</i> (human whipworm)	<i>Taenid</i> (human tapeworm)
Monrain Site	201	Privy	ca. 1898	100	-	-
Sheridan Hollow Site	7	Privy	ca. 1845	2,750	200	-
	8	Privy	ca. 1850	6,550	550	50
	6	Privy	ca. 1864	5,250	700	-
	11	Cistern	ca. 1864	50	-	-
	4	Privy	ca. 1870	6,400	1,550	-
	12	Drain	ca. 1870	7,800	100	-
	3	Privy	ca. 1903	100	50	-
	10	Privy	ca. 1903	-	-	-
	2	Privy	ca. 1921	-	-	-

tapeworm) and two types of dog parasite eggs. *Ascaris* and *Trichuris* were the most prevalent parasite species encountered.

Table 10.1 shows results from the Sheridan Hollow features, sorted according to *terminus post quem* date, and from the Monrain privy. The Sheridan Hollow features show a general trend of decrease in parasite concentration over time. The parasite concentrations of the Monrain privy and the Sheridan Hollow features also follow the general pattern of decline in parasite infection during the course of the nineteenth century that is shown by determining averages for date ranges based on the combined data of privies from four eighteenth- to nineteenth-century sites in Albany and one late-nineteenth-century site in Troy.

The *Ascaris* egg concentration in the Monrain privy is comparable to contemporaneous features in other regional sites (Table 10.1). A wood-lined privy in the nearby Sheridan Hollow site dating to the first decade of the twentieth century had a similar level of parasite infection. The concentration of parasites in the Monrain privy is also below the average of 200 eggs/ml for privies dating to 1880–1921 in the Albany/Troy area (Table 10.2).

Between six and nine people lived in the Monrain household around the time the nightsoil deposits were created, including two or three school-aged children.

Children are usually more susceptible to heavy infections of intestinal parasites. Because of more child-mother interactions, adult females are also more inclined to be infected with certain types of parasites, such as pinworms, than adult males. Therefore, households containing more children and mothers are often more heavily infected with parasites (Reinhard 1994:66). The low concentration of *Ascaris* in the Monrain privy and the absence of any other kinds of parasites, such as whipworm or tapeworm, that were encountered alongside *Ascaris* in Sheridan Hollow privies, suggests that the Monrains were taking some hygienic measures to reduce or avoid infection.

Sheridan Hollow residents may have struggled with polluted water on a regular basis, perhaps even from their own backyard. Soil samples taken from the base of the ca. 1870 wooden cistern uncovered behind 112 and 114 Sheridan Avenue contained 50 *Ascaris* eggs/ml of soil, indicating that human fecal waste was contaminating their cistern (Table 10.1). This may suggest that the privy vault frequently overflowed, and waste seeped into the cistern from the ground surface or a leaking drain. The Sheridan Hollow residents had access to municipal water from public water pumps in Sheridan Avenue by 1860 (ACC 1861:224, 251). The residents may have used these wells on a regular basis. Between 1875 and 1877, various motions by members

of the city council proposed removal of the pumps on Sheridan Avenue, perhaps as a cost-saving measure, but each in turn was voted down (ACC 1875:440, 570; ACC 1877:273). In 1895, the old wooden log pump at Canal and Hawk was replaced with an iron pump necessitated by the residents' continued use of the street wells (ACC 1896:337; ACC 1897:13). As late as 1896, it was noted that "Notwithstanding the fact that many of the wells of the city had been condemned by the Board of Health as unfit for use, the residents in the vicinity of such wells preferred to drink well water to that supplied by the city" (ACC 1897:13). Perhaps the city had condemned these wells as sources of infection. The germ theory of disease was beginning to gain acceptance around this time and public wells had been recognized as sources of fecal-borne diseases such as cholera and typhoid (Tomes 1998:100).

### Spatial Organization of the Dwellings

The architectural design of dwellings and their pattern of use provide an understanding of how people affected and were affected by their living conditions. Space is the connection between the individual and the world, and is engaged in the formation of individual and group identities. With this in mind, we will examine the domestic living spaces in the Sheridan Hollow site and the Monrain site.

Although there were no remaining superstructures of the Sheridan Hollow site dwellings, archaeological evidence of the foundations and other architectural elements recovered from the excavations combined with historical architectural research allowed us to conceptually reconstruct the nineteenth-century dwellings from the ground up. The foundations and architectural remains of 112 and 114 Sheridan Avenue allowed us to create conjectural reconstructions of the attached row houses at 110 through 114 Sheridan Avenue, which will be the focus of this analysis. Archaeologists did not uncover any foundations or architectural remains of 116 Sheridan Avenue in the site.

Samuel Pruyn constructed the Sheridan Hollow dwellings at 110–114 Sheridan Avenue ca. 1839–1841 out of brick, as three-story, modest style, single-family dwellings (ANCHOR 1840, 1841). Pruyn was a dry goods merchant who lived on North Pearl Street, not on Sheridan Avenue. Salient characteristics of the dwellings included a footprint that was one and a half rooms deep, a high basement, and a side passage hallway. The 110–114 Sheridan Avenue house type as a common type in Albany by the end of the eighteenth century. Houses of this form were becoming known as "row" houses for the reason that prosperous individuals used this house type to construct rows of houses on

speculative property, just as Samuel Pruyn did ca. 1839 (DiVirgilio et al. 2005:55).

The conceptual reconstruction of the house layout suggests that Pruyn may have constructed these three buildings with the intent to let them to single families. Each of the houses likely had the same footprint, which was typically the case when rows of three or more houses were constructed. The basement of each house was composed of two rooms and a hall. The two rooms were initially constructed as the kitchen and the family dining room.

Some of the typical elements of row houses, especially the basement kitchen, were enforcing remnants of eighteenth-century ideology involving the spatial separation of power and class. In the eighteenth century, since slaves or servants used kitchens and other service areas, such areas were constructed in the basement spaces of the row houses. This would have enforced a segregation between the free and slave or lower servant class of the house, or, in more modest households, between the adult males and the women and children of the household. However, during the early nineteenth century, after the abolition of slavery and the expansion of the middle class, the task of cooking was transferred to women of the family. Victorian architects such as A. J. Downing had argued for the removal of kitchens to the first floor of the house, citing more healthful air and greater ease and efficiency in carrying food and fuel. Around this time, kitchens were placed on the first floor of the house instead of the basement (DiVirgilio et al. 2005:56). The use of basement kitchens at the Sheridan Hollow site may have been a choice implemented because of the restricted space on the building sites at 110–114 Sheridan Avenue.

Although the first floors of the Sheridan Hollow buildings were not extant during the current investigation, houses of similar scale and period constructed in the city of Albany have a first floor plan that was substantively the same as that of the basement. When initially constructed, the first floor of a house in the Pruyn row would have had a larger front room flanked by a hall with a smaller chamber to the south. The front room would have served as a parlor, while the smaller chamber, in some cases divided into two small rooms, would have been used for sleeping quarters. The location of the chimney in the basement is strongly suggestive that there was only one fireplace on the first floor, with the smaller space and the hallway remaining unheated.

The utilization of the space as described above was likely restricted to those occupying dwellings as single-family homes. Although Pruyn may have constructed these three single-family row houses with the intent to let them to single families, census records indicate

between two and six families occupied each individual dwelling between 1850 and 1900. When several families occupied the Sheridan Avenue houses at once, the privileges of spatial separation were beyond access to those living in such crowded conditions. The increasing populations of each of these buildings necessitated the multiple use of each space, and the subversion of the public vs. private areas and of the gendered order that was originally objectified in the buildings. The crowded conditions forced hallways, kitchens, and parlors into service as sleeping quarters and make-do living and food preparation areas. Comparison between the Sheridan Hollow row houses and the Monrain house demonstrates how the living conditions diverged between the residents in crowded multiple household tenements and the Monrain family.

The Monrain house at 253 Sherman Street was extant at the time of the archaeological investigation. It was initially constructed ca. 1865 (ANCHOR 1858, 1864). The Monrain family and their children owned and occupied the dwelling at 253 Sherman Street from 1872 to 1969 (ANCHOR 1872, ACCO 1969). Although many modifications had been implemented to the original structure over the years, an extensive architectural documentation of the structure by HAA revealed much of the original design and historical details (McQuinn et al. 2008:40–47).

The wood-framed dwelling was three bays wide and one-and-a-half stories tall. It had a steep gable roof parallel to the street. Dormers were centered on the south and north (street side and rear) slopes of the roof. The house had a roughly rectangular plan with two square-shaped principal rooms on opposite corners of the basement and first floors and two small bedchambers occupying the corner opposite the stairwell and hallway on each floor. These rooms centered on a small passage containing a china closet and drawers, giving the overall plan a pinwheel form. A stairwell and hallway occupied the southeast corner of all the floors.

The Monrain house had a high brick basement, which allowed windows to bring light into it. The principal rooms in the basement included the kitchen and a dining room or family room. Three-foot-high wainscot extending around the perimeter of each room indicated a utilitarian character for these spaces. Painted wainscot forms a sanitary surface that is easier to clean than porous plaster walls and protects the fragile plaster surfaces from the backs of chairs. The Monrains may have maintained the basement-level kitchen at 253 Sherman Street to make more efficient use of space in their modest home in exchange for the inconvenience of climbing up and down stairs. As mentioned above, by 1840, basement-level kitchens were becoming outmoded and remained only as a choice for constricted house lots and

economical use of space in smaller homes. The first floor contained a front parlor, which was indicated by a layer of nineteenth-century wallpaper laid directly on a brown coat of plaster. The other principal room on this floor may have been a dining room. Two small bedchambers were located in the northwest corner of the house. The second floor of the house remained undivided until around 1890, perhaps when one of the Monrains' daughters moved back into the house with her husband.

The original interior finishes and woodwork throughout the house were very simple in decoration. The molded architraves and mantles and embossed cast metal hardware on built-in cupboards were all mass-produced styles available in the late nineteenth century. The decorative details on the original house hardware were inspired by Aesthetic Movement motifs, which prominently employed designs from nature, especially flowers, birds, and leaves.

Many contemporary homes similar to the Monrain house at 253 Sherman Street still remain in the West Hill and North End neighborhoods of Albany, which were Albany's largest German neighborhoods in the nineteenth century. This particular "half-passage"-plan house style of one-and-a-half stories elevated on a high basement with basement kitchen has been traced to historical working-class German owners, such as the Monrains, in the second half of the nineteenth century. Approximately 500 houses of this type were constructed in the city of Albany between ca. 1850 and 1885. Most such houses were constructed in the two areas of the city where German Americans settled, the Bowery (West Hill) and the North End, and their dates of construction coincide with the period of greatest influx of German immigrants. A limited study of 40 half-passage houses where the country of origin of the occupants could be determined revealed that people born in one of the German states occupied 36, or 90 percent. The balance had been born either in the United States (7.5 percent), or in France (2.5 percent) (McQuinn et al. 2008:37).

The obvious difference in occupation of the Sheridan Hollow dwelling and the Monrain house is that the Monrains largely had control over the arrangement and design of their home, whereas the Sheridan Hollow occupants were tenants with little control over their living situation. Unlike the Sheridan Hollow residents, the Monrains were able to employ spatial separation of private spaces, namely sleeping quarters, from public or utilitarian spaces, such as a front parlor or kitchen. No more than nine people, including Otilia and Peter Monrain and between two and seven children, resided in the Monrain house between 1872 and 1900, whereas each house at 110, 112, and 114 Sheridan Avenue contained between two and seven families and between

five and 26 individuals during the period from 1850 to 1900. The difference in spatial separation by the Sheridan Avenue residents compared to single-family households intensified their separate social status. Their unequal access to modern technologies, including transportation, and to conveniences that were beginning to be incorporated into the design of some of the upper-class houses in the 1840s, especially plumbing, separated them even further from the middle and upper classes.

### Material Culture

Archaeological data become more meaningful when compared to data from other similar archaeological sites in order to observe variations in patterns of consumption. Consumption is a major component in the construction of personal and group identity. Although consumers do not meditate on every purchase and how it will reflect their identity, each purchase is influenced by economic means and the consumer's perception of his or her relationship to the rest of the world.

An interesting dissimilarity emerges between the artifact class distributions at the Monrain site and the Sheridan Hollow site (Figure 10.3). Whereas ceramic vessels and architectural debris dominate the Monrain site, ceramic vessels and food remains dominate the Sheridan Hollow site. The difference in frequency of food remains—the greatest disparity between the two sites—is striking. The food remains from the Sheridan Hollow Site comprise nearly a quarter of the assemblage, whereas the Monrain site assemblage is only 6.9 percent food remains. The variation in the number of residents at each site may account for some of this disparity. The Monrain household varied between five and nine persons during the years from which the archaeological assemblage dates. The Sheridan Hollow site included three dwellings with between two and seven households in each during the study period. The distribution of artifacts at the two sites is a fairly true representation of the material discarded on an everyday basis by the residents at both sites. As mentioned above, the concentration of artifacts in the privy vaults and backyard sheet middens at both sites indicates that the Sheridan Hollow residents and the Monrain family generally did not dispose of rubbish off-site due to the expense of hiring a private rubbish hauler. Therefore, the assemblages recovered from the features and deposits at both sites likely represent the regular consumption patterns at both sites.

In economic studies of working-class families living in New York City in the early twentieth century, sociologist Louise Bolard More and economist Robert Coit Chapin observed that the percentage of income expended on

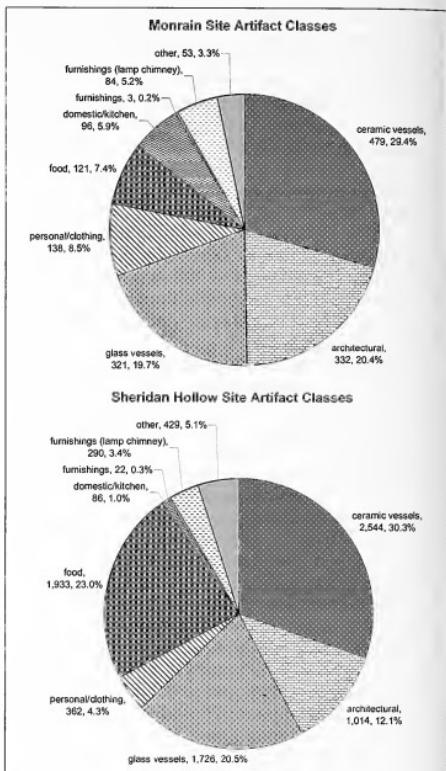


Figure 10.3. Distribution of artifact assemblages from the Monrain site and the Sheridan Hollow site among functional classes. "Other" includes artifacts from a few smaller functional classes containing small numbers of artifacts including lighting, hardware, toys, medical, commerce, arms/military, tools, and transportation. Indeterminate artifacts, soil samples, coal and slag, and non-architectural stone were excluded from these charts.

food by poor and working-class families increased as the level of income decreased (Chapin 1909:123, 140; More 1907:62). Poor families often spent the greatest single percentage of their income on food. The food expenditures show a tendency to spend more money on breads and cereals and less money on meats as the income decreases (Chapin 1909:124, 139). The frequency of food remains in the Sheridan Hollow assemblage may repre-

sent residents' consumption of more food than durable goods (dishes, furnishings, personal items, etc.).

There is also a considerable difference in the frequency of architectural remains between the two sites. While 23 percent of the Monrain site assemblage consists of architectural remains (mostly window glass fragments and nails), only 12 percent of the Sheridan Hollow assemblage was architectural artifacts. Residents of the Sheridan Hollow site were tenants who did not own the houses they lived in and had little reason to invest in any improvements. The Monrains owned and occupied their home for over a century and chose to maintain and improve their investment. Similar differences are apparent in the frequency of domestic and furnishing items recovered from the owner-occupied Monrain household and the tenant-occupied Sheridan Hollow dwellings. The transitory tenants of Sheridan Hollow probably owned few or no household furnishings or domestic items and consequently would have thrown less away.

Although many more differences between the artifact assemblages can be discussed in the comparison of these two sites, I will focus on one artifact category where the disparities and similarities between the two sites illuminate important information about the social identity of the residents. Small personal and clothing items (buttons, jewelry, tobacco pipes) articulate some of the distinctions between the Monrain family and the Sheridan Hollow residents as depicted in their material possessions. Personal items occurred less frequently than most other classes of artifacts in both assemblages. Personal items comprised 8.5 percent of the Monrain assemblage (139 out of 1,628 artifacts) and 4.3 percent of the Sheridan Hollow site assemblage (362 out of 8,406 artifacts). Totaling 8,406 artifacts, the Sheridan Hollow assemblage is over five times larger than the Monrain assemblage. In spite of this, the frequency of personal items recovered from the Monrain site outnumbered that from the Sheridan Hollow site by 4.2 percent (Figure 10.3). This is even more meaningful when the large number of individuals contributing to the Sheridan Hollow assemblage is taken into consideration. More people contributing to the assemblage could have owned (and discarded) more personal items than a single-family household, as was demonstrated with the food remains above. However, the Sheridan Hollow residents discarded very few personal items. This indicates that the Monrain family owned more personal and clothing-related artifacts than the Sheridan Hollow tenants.

Despite the lower frequency of personal items from the Sheridan Hollow site, a greater variety of personal items was recovered there in comparison to the Monrain site. The Sheridan Hollow assemblage included 21 different types of personal items and the Monrain site included nine types (Table 10.4). This pattern may

reflect the variation in size between the assemblages or the greater number of individuals living at the Sheridan Hollow site.

Despite the comparative paucity of personal and clothing items in the assemblages compared to other artifact classes, these items are important components for understanding how the site residents chose to portray a personal and intimate expression of their identity to the public. The low frequency of personal artifacts at the Sheridan Hollow site may be due in part both to economic disadvantages faced by the Sheridan Avenue tenants and to the cultural formation processes of the privy vault deposits where most of the artifacts were recovered. The Sheridan Hollow deposits contained many whole or reconstructable vessels likely representing a single depositional event, for example, the disposal of a previous tenant's leftover household belongings by newcomers. The small personal belongings of a previous tenant were less likely to be left behind because they were easily portable and perhaps valuable personal items, such as clothing, knick-knacks, toys, jewelry, and sewing tools. Those deposits containing mostly household rubbish also may also represent the end of use of the feature as a privy, since in 1872 the city prohibited any deposition of household refuse in a privy vault (ACC 1872:95).

Many of the items were necessities such as buttons and shoes. Buttons and beads were more plentiful in the nightsoil deposits from both sites than other proveniences. This is a common pattern in historical sites, likely resulting from buttons and beads accidentally popping off privy users' garments and falling into the vault of the privy. Most of the buttons from both sites were plain white glass four-hole sew-through buttons, almost exclusively the type of button recovered from nineteenth-century working-class sites. Plain white glass buttons are often associated with mass-produced ready-made shirts, vests, and pants. The prevalence of these buttons on both sites indicates that the residents commonly wore affordable and easily available ready-made clothing that was becoming popular in the late nineteenth century.

In general, the clothing and personal items recovered from the Sheridan Hollow site were simple and undecorated. This plainness of clothing and personal adornment illustrates some important points. It was more practical to dress plainly for work that would likely get you dirty, such as cooking or laundering clothes or many of the manual labor jobs in which the residents were employed outside the home. In the Victorian era, conservative dress, especially among married family women, was also considered respectable (Plante 1997:106).

A few special clothing items encountered at Sheridan Hollow, such as faux gems, glass beads, and colored

**Table 10.4.** Types of Personal Items Recovered from the Sheridan Hollow and Monrain Sites.

Type	Sheridan Hollow Site	Percent of Total	Monrain Site	Percent of Total
Bead	5	1.4	32	23.0
Brush	1	0.3		
Button	70	19.3	31	22.3
Chain	1	0.3		
Comb	3	0.8		
Fastener	3	0.8		
Glass gem	2	0.6		
Grommet	2	0.6		
Jewelry	4	1.1		
Key	2	0.6		
Pen	1	0.3		
Pencil	11	3.0	10	7.2
Purse			2	1.4
Record	1	0.3	1	0.7
Safety pin			1	0.7
Shoe/shoe part	28	7.7	1	0.7
Straight pin	5	1.4	14	10.1
Thimble	1	0.3		
Tobacco pipes	218	60.2	47	33.8
Toothbrush	3	0.8		
Writing slate	1	0.3		
<b>Grand Total</b>	<b>362</b>		<b>139</b>	

buttons, were evidence of the few embellishments afforded by residents beyond their day-to-day wear. However, these items were a minority in the assemblage. The Monrain site also included colored and decorated buttons, including blue glass, glazed redware, and porcelain. In addition, 32 glass beads were recovered from the nightsoil level of the Monrain privy. The tiny glass seed beads were commonly used to adorn women's dresses and handbags in the nineteenth century. These items may suggest that the Monrains also owned and wore special-occasion clothes often. Items such as the glass beads and the preponderance of straight pins in the Monrain site may also be associated with the occupation of one of the Monrain daughters as a dressmaker around the end of the nineteenth century. Dressmakers either worked in small shops or out of their homes, sewing fitted and decorated dresses mostly for upper-class female clients (Gamber 1997:12). A nickel-plated clasp from a six-inch-wide women's frame purse was also recovered from the Monrain site. This type of purse was popular in the late nineteenth century. The bag itself was usually made out of cloth or leather and often was decorated with beads or embossing on the leather.

Dress was not the only manner in which people conveyed social identity. White clay tobacco pipes were another important indicator of class and ethnicity. Their near ubiquitous presence made them a popular visible symbol of working-class membership that the middle class avoided by smoking French briar pipes or cigars. Victorian social commentators particularly scorned the working-class practice of smoking pipes in public. Due to their high visibility, especially among other members of the working class, symbols or decorative patterns on the pipe bowls served as additional expressions of ideology and ethnicity. Patriotic, political, or cultural symbols perhaps expressing the smoker's political views were often emblazoned on pipe bowls (Reckner 2000:99). Effigy bowls molded in the shape of human or animal heads were also popular in the first half of the nineteenth century (Bradley 2000:115).

Tobacco pipes were the most frequently recovered personal item at both sites (Table 10.4). However, the frequency of tobacco pipes in the Sheridan assemblage was twice that of the Monrain assemblage, constituting 60.2 percent of the personal artifacts as opposed to 33 percent of personal artifacts at Monrain. Most were made of white clay. A few at each site were red clay pipes.



**Figure 10.4.** Several pipe bowls and stems from Feature 3 in the Sheridan Hollow site. The middle pipe bowl in the top row is a patriotic relief mold of an eagle (NYSM Accession No. A2007.14). The pipe bowl on the right end of the top row is molded with an Irish design of a shield with shamrocks beneath. A "TD" with thirteen stars motif pipe bowl is directly beneath the eagle design pipe. Courtesy New York State Museum, Albany, NY.

Of the 218 tobacco pipe pieces (bowls, stems, spurs) recovered from the Sheridan Hollow site, there were 76 bowls, bowl fragments, and bowl-stem-spur junctures. This represents the minimum number of pipes recovered at the site. Of these 76 pipes from the Sheridan Hollow site, 47—or 62 percent—had molded decorations on the pipe bowls and spurs. Decorations encountered on pipes at Sheridan Hollow included patriotic symbols such as 13 stars and eagles, which were popular around the celebration of the Centennial in 1876 (Figure 10.4). Pipe bowls also portrayed Irish symbols such as shamrocks and shields. Another pipe bowl molded in the form of a cabbage head may also be considered an Irish motif since Irish Americans commonly consumed this food (Diner 2001:122). The presence of such pipes does more than indicate that residents of the site were Irish. It shows that they consciously identified themselves as such. Some pipe stems also bore the name of their manufacturer, such as "MCDOUGALL" or the frequently imitated "PETER/DORNI."

Four effigy bowls molded with human faces or in the shape of human heads were recovered from Feature 4 at the Sheridan Hollow site. Pipes of this type were popu-

lar in the first half of the nineteenth century (Bradley 2000:115). One bowl was molded featuring a male face on the side facing the smoker and a female face on opposite side of the bowl (Figure 10.5). The hair and clothing styles of the two heads suggest that they are supposed to be royalty. The pipe was finely molded and the mold seams were finished, in contrast to most of the other bowls at this site, which were hastily finished or were left unfinished. This suggests that this pipe may have been a special gift or a pipe reserved for special occasions. Another bowl presents the face of a male finely embossed onto two sides of a pipe bowl (Figure 10.6). There is also a small sun shape on the spur of the pipe. The person on this bowl may have been a political or labor figure who was being commemorated, a common theme in the nineteenth and early twentieth century (Bradley 2000:113–114). The sun was a common symbol associated with Freemasonry, suggesting the bowl decoration may have had something to do with the fraternal order of Freemasons. Masonic symbols were popular decorations for utilitarian objects in the early nineteenth century (Dallal 2000:121). The third and fourth examples of effigy pipes were two bowls



**Figure 10.5.** An anthropomorphic bowl design molded with the face of a king and queen on opposite sides of the bowl (NYSM A-A2007.14.50.362).

Courtesy New York State Museum, Albany, NY.



**Figure 10.6.** White clay tobacco pipe with a molding of a man's face on both sides, perhaps a portrait of an important person recovered from the Sheridan Hollow site (NYSM Accession No. A2007.14). Staining along the top edge of the bowl rim is from use-wear.

Courtesy New York State Museum, Albany, NY.

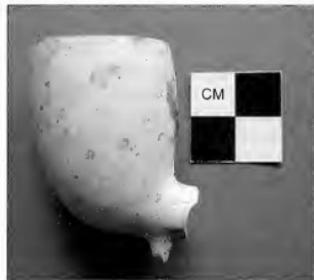
molded in the same design of a man's head with a beard and mustache, wearing a turban and a frilled collar (Figure 10.7). Thirteen stars and the words "UNITED STATES OF AMERICA" are molded in relief on the outside of the turban. A similar pipe was recovered from the Five Points archaeological site in New York City (Reckner and Dallal 2000:95).

Forty-seven pipe fragments were recovered from the



**Figure 10.7.** One of two identical effigy pipes recovered from Feature 4 in the Sheridan Hollow site (NYSM A-A2007.14.52.035). They are molded in the shape of a man's head wearing a turban and a frilled collar. There are 13 stars molded in relief on the outside of the turban. "UNITED STATES OF AMERICA" is embossed on the outside edge of the bowl rim.

Courtesy New York State Museum, Albany, NY.



**Figure 10.8.** An undecorated tobacco pipe bowl from the Monrain assemblage.

Monrain site, constituting a minimum of 15 individual pipes based on the number of bowls, bowl fragments, and bowl-stem-spur junctures. Of these 15 pipes, five—or 33 percent—had decorated bowls. Most of the pipe bowls and stems in the Monrain assemblage were undecorated (Figure 10.8). Six stems in the assemblage were molded with the name of the manufacturer, including "McDOUGALL/GLASGOW" and "PETER/DORNI."



**Figure 10.9.** Wolf effigy pipe bowl recovered from the surface of the Monrain privy.

Two decorated pipe bowls in the Monrain assemblage had the same small circular cartouche symbol on the side of the bowl facing the smoker, perhaps indicating the manufacturer. One pipe bowl in the assemblage was molded with the letters "TD" on the side of the bowl facing the smoker. This pipe also had floral molding around the base of the stem. TD was one of the most common decorations on clay pipe bowls, although the meaning of the letters is unclear. The letter may have originated from the initials of a high-quality pipe manufacturer in the 16th century that were widely plagiarized. By the nineteenth century, TD had evolved into a popular decorative element that was used by numerous pipe manufacturers (Bradley 2000:112). The only heavily decorated pipe bowl from the Monrain site was an effigy bowl modeled into the shape of a wolf's head with its jaws open around the base of the stem at the bowl (Figure 10.9).

The greater number of residents and hence greater number of possible pipe smokers at the Sheridan Hollow site may have contributed to the greater overall frequency of tobacco pipes in the assemblage there. However, the almost twofold greater frequency of decorated pipe bowls at the Sheridan Hollow site suggests that decorated pipes bowls had a different meaning for Sheridan Hollow residents than they did for the Monrains. Despite any negative connotation middle-class society placed on the smoking of clay tobacco pipes, these pipes became a proud symbol of class membership for the working class.

Although pipe smoking was common among men and women in the nineteenth century (Beaudry 1993:93), it was most common among men. Monrain household men included only Peter Monrain and between two and five of the Monrain sons between

1873 and the early twentieth century. The paucity of pipe fragments in the Monrain assemblage may be due to the fact there were fewer potential smokers in the household. However, there were between eight and almost fifty males contributing to the Sheridan Hollow deposits who could have been smokers (DiVirgilio et al. 2005:43).

Perhaps the tenants in the Sheridan Hollow row houses chose to utilize tobacco pipes to define and distinguish themselves and their ideology in an environment where they had little control over the other conditions of their home, yards, and living situation. The clay pipes' overt symbolism as a mark of working-class membership and a placard for political ideologies did not wield the same importance to members of the Monrain household, who were able to make other choices in the location, organization, and use of their home and surroundings to articulate important values and ideologies.

## CONCLUSION

The overall social standing and economic position of the Monrain family and the Sheridan Hollow residents may have been similar in some respects within nineteenth-century Albany society. Both groups of residents were members of the two largest working-class immigrant groups in Albany at the time, and both settled in large immigrant communities in the city. Historical information portrayed these two communities as similarly distasteful places to live. Nineteenth-century middle-class observers may not have perceived very much difference between the two groups of foreign-born workers. However, archaeological evidence has revealed that their everyday lives actually differed considerably.

There was a profound difference between the historical landscapes that surrounded both sites. The Sheridan Hollow site was located in the bottom of a steep, poorly drained ravine. The steep slope abutting the rear of the Sheridan Avenue dwellings may have stymied any attempts to properly drain the backyards and privies. The crowded conditions and absent landlords may have fostered the rubbish-strewn conditions and rodent problems in the backyards as well. Archaeological evidence, namely the prevalence of fecal-borne diseases as indicated by the intestinal parasite concentrations, showed that crowded living conditions and, perhaps, drainage problems in nineteenth-century Sheridan Hollow likely affected the health of the residents negatively. The low wages earned by most of the residents at the Sheridan Hollow site may have only afforded them a life in the crowded, undesirable, poorly drained neighborhood.

In comparison, the Monrain site was located in a less crowded, well drained, and relatively flat area of Albany. Although archaeological evidence shows that they likely had a moderate-density sheet midden in their backyard, rubbish did not accumulate to the degree it did in the Sheridan Hollow site. They also likely had some grassy vegetation and trees in their backyard. The Monrains were the owner-occupants of their home, allowing them greater control over their backyard space and surroundings. This fact combined with the relatively lower occupant density of the Monrain household may have been a large contributing factor to their lower exposure to fecal-borne disease as demonstrated by the low concentration of intestinal parasites.

Overall, the material culture examined also shows that Sheridan Hollow residents may not have been able to afford the quantity of items the Monrains could, but they were still able to provide a modest lifestyle and make expenditures on a few extras beyond ordinary subsistence. The Sheridan Hollow assemblage consisted of about 23 percent food remains, over three times the frequency of food remains from the Monrain site. This Sheridan Hollow site also had a much smaller frequency of personal items and domestic furnishings. Both facts indicate that the Sheridan Hollow households were in a poorer economic circumstance than required them to put most of their income toward food rather than durable goods. The stable and more substantial income afforded by Peter Monrain's skilled profession as an iron moulder probably allowed the Monrains to spend more on non-essentials such as personal items and toys, whereas Sheridan Hollow residents may have been required to use more of their income toward food. Despite the disparity in the frequency of personal items from the two sites, the Sheridan Hollow site had a greater diversity of personal items, especially tobacco pipes, indicating that perhaps the discrepancy is evidence of different site formation processes or different values of the residents.

Many of the variations encountered between the sites demonstrate differences in household demographics, economic strategies, and cultural practices. The importance of this comparison is to demonstrate the complexity of variability between two sites and the related variability in the lives of the people who lived there. Archaeology in historical working-class communities can explore beyond generalizations and ultimately develop a more complete and richer social history of life in the urban environment.

## ACKNOWLEDGMENTS

I could not have completed this analysis without the work of my colleagues at Hartgen Archeological Associates, Inc. I would especially like to thank Justin DiVirgilio and Corey McQuinn for offering me the opportunity to study the Sheridan Hollow site and the Monrain site, respectively. Justin DiVirgilio researched much of the historical context information for Sheridan Hollow employed in this analysis. Walter R. Wheeler created the conceptual reconstructions of the Sheridan Hollow dwellings and Monrain house. Walter Wheeler and Robyn Battles also conducted most of the research for the "half-passage" German house types in Albany for Walter's forthcoming book on Albany's vernacular architecture.

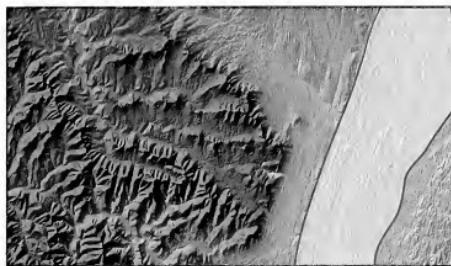
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# LANDSCAPES





## NEW AMSTERDAM: The Subordination of Native Space

Anne-Marie Cantwell and Diana diZerega Wall

In this chapter we use archaeological investigations to provide insights into the changing ecologies and cultural landscapes of the place that became the colonial city of New Amsterdam. We begin with a 13,000-year-old hunting camp; move on, first, to a windmill from the earliest Dutch settlement in New Amsterdam as it enters the Atlantic world; then, to the expanding mid-seventeenth-century slave-owning city and its impact on the Native landscape; and end with a glimpse of a post-colonial city still haunted by its past.

We are honored to be part of this tribute to Chuck Fisher, a scholar, gentleman, and just as importantly, one of the nicest people we have known. Inspired by his important exhibit, *Beneath the City: An Archaeological Perspective of Albany*, at the New York State Museum, our essay looks at the archaeology of the changing landscapes of an area that was also, for awhile, a Dutch colonial port, New Amsterdam, now lying beneath the modern city of New York.

Although many narratives of European colonization continue to promulgate the myth that the colonizers came to "new" worlds and built their settlements in the "wilderness" there, these are in fact just myths.<sup>1</sup> In virtually every case, both in North America and elsewhere, Europeans appropriated this land from indigenous peoples (cf. Gosden 2004). The development of these colonies was part of the process of "the production . . . acquisition, subordination, and settlement of space" (Said 1989:218) on the part of the Europeans as they took over large chunks of indigenous lands and incorporated them into a "global power grid of empire" (Jacobs 1996:4). This is the case with the seventeenth-century Dutch settlement of New Amsterdam. There, the land had a deep and complex Native American past long before the Europeans came and appropriated it by, first, setting up an outpost at the edge of empire and, subsequently, establishing a slave-owning settler colony there.<sup>2</sup> Here, we use archaeological investigations conducted in New York City over the last century along with colonial documents to shed some light on this

spatial transformation and its effects on the Native populations as their space was brought under European control.

The sites we discuss in this essay include a 13,000-year-old campsite that establishes the beginning of the long Native presence in the area; a windmill from the earliest Dutch settlement, built atop an earlier Native site, that marks the launching of the European acquisition of indigenous Munsee<sup>3</sup> land; and a mid-seventeenth-century home and a warehouse that show that New Amsterdam was a Dutch-inspired mercantile city built in Munsee territory. We also discuss the ways in which the landscape just outside the city was subordinated to a European vision by examining an African community and a quartet of Munsee sites, spread out on the outskirts of New Amsterdam. Then, we provide a coda discussing the recovery and memorialization of human remains found at two sites, one African, discovered not far from their seventeenth-century community just outside New Amsterdam, and the other Indian, discovered on Ellis Island, a national icon honoring immigration to a "New World" and whose Museum of Immigration was built atop a Native site. These archaeological discoveries provide the material evidence to challenge the classic narrative of New Amsterdam. All these sites not only cast a different light on the stirring stories of Dutch equality and toleration in the colonial city (e.g., Shorto 2004), but also put to rest the myth of settlers creating a city out of a wilderness.

### THE MAKING OF AN OLD WORLD

The beginnings of the long Native presence in the area that would become New Amsterdam are tied to its late Pleistocene glacial history. Sometime around cal 24,300 B.P., the Wisconsinan glacial front reached its final advance and formed its terminal moraine across what is now Long Island. From then on, the glacial front retreated northward, in fits and starts, from its terminal

location. The landscape it left behind, unrecognizable to modern eyes, would continue to change over the millennia, offering different opportunities to the Native populations that came to the area (Cadwell et al. 2003; Ridge 2003; Schuldenrein et al. 2007; Sirk 1982, 1986; Thieme 2003).

The archaeological evidence for the earliest indigenous presence in the area dates to around cal 13,000 B.P. At that time, sea levels were low, approximately 50 to 120 feet below their present position, due to the effects of the glaciation, and the entire area was inland; the "habitable Coastal Plain land surface extended from 24 to 60 miles to the edge of the continental shelf" (Schuldenrein et al. 2007:111). New York harbor did not exist, and would not for thousands of years.

Archaeologists call these early inhabitants in the region Paleoindians.<sup>4</sup> Back in the 1950s, avocational archaeologists Albert Anderson and Donald Sainz and their colleagues discovered evidence of this Paleoindian presence in coastal New York at the Port Mobil site and in two adjacent areas on Staten Island (Figure 11.1). The site today is part of a huge tank farm and extends down to a refuse-strewn beach. But 13,000 years ago, when Paleoindians were there, the site was on high ground with commanding views across the exposed continental shelf. The landscape they saw was marked by lakes, rivers, inlets, islands, and a fresh-water marsh, and was dominated by an open spruce parkland, with oak trees beginning to make their appearance. The wide range of artifacts collected at the site—Clovis points, hide and wood scraping tools, and knives, among others—suggests that one or more pioneering families stopped there for awhile, some to hunt, others perhaps to fashion bone and wood into tools, and still others to process the hides from the animals killed in the hunt into the

boots, clothing, and bedding that everyone needed to survive in the post-Pleistocene environment (Cantwell and Wall 2001:35–47; Fiedel 1999; Kraft 1977, 2001:45–84; Sainz 1962; Schuldenrein et al. 2007:111).

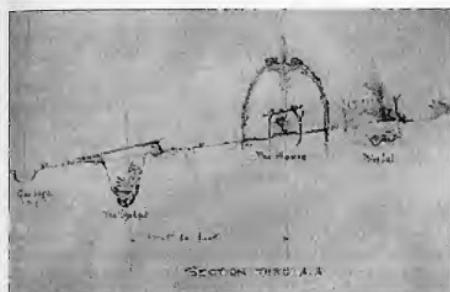
We do not know exactly what they were hunting as they spread out from their high-ground camp at Port Mobil. At one time, many archaeologists argued that Paleoindians were 'big game hunters' who made their living by hunting mastodons and other Pleistocene megafauna. Although that particular argument for North American Paleoindian subsistence is far from over (i.e., Wagstaff and Surowell 2003), the archaeological evidence from northeastern North America does not support this. Instead, it suggests that the Paleoindians in the region hunted other game, such as caribou, marten, and hare, using the meat for food and the hides for clothing, and supplemented their diet with fish and a variety of plant foods (Cannon and Meltzer 2004; Dent 2007; Funk 1991, 2004; Gramly and Funk 1990; McWeeny 2007).

For roughly six millennia after the Paleoindian arrival, the archaeological record, scant though it is, suggests a presence of Native peoples in the area that was to become coastal New York. During this vast time span, sea levels rose and local ecologies changed. Native populations during that time presumably, like those elsewhere in the Northeast, adapted to these post-Pleistocene changes and were themselves active agents in reshaping the environment. Unfortunately, archaeologists who study pre-Columbian coastal New York have had few opportunities to study this changing ecological feedback system or other elements of the lifeways of that time as populations came and went. Although a few scattered sites have been found in the city, they were excavated or collected years ago with the techniques of those times, and our knowledge of the life of these early inhabitants is perforce sketchy (Ritchie and Funk 1971; e.g., Skinner 1919, 1920). Other sites may have been drowned by the rising sea level or destroyed by intensive urbanization or, it is hoped, are still there waiting for excavation and analysis to add to our understanding of these times (Cantwell and Wall 2001:46, 72; Funk 1991, 1996; Kraft 2001:89–148; Lavin 1998; see also Bernstein 2006 for a related discussion).

Approximately cal 7000 B.P., the rate at which the sea level was rising began to slow down and this slowing down "accounts for the abundance of Late Archaic sites in settings that are now at or slightly below present shoreline positions" (Schuldenrein et al. 2007:112). By cal 2000 B.P., New York harbor had assumed "its near modern configuration" (Schuldenrein et al. 2007:104).<sup>5</sup> As sea levels stabilized, the landscape around the newly formed shore developed into a lush estuarine environment. Native peoples settled all along this new coast-



Figure 11.1. The Port Mobil Site on Staten Island in the 1990s. Photograph by Anne-Marie Cantwell.



**Figure 11.2.** Bolton's view of a typical Late Woodland home, showing in cross section a garbage pit, a shell pit, a house, and a human burial.

National Museum of the American Indian, Smithsonian Institution.

line, exploiting the incredibly rich mudflats and saltwater marshes. Some archaeologists, like Lucianne Lavin, have argued that the development of these marshlands ultimately made this “one of the most productive landforms in the world, rivaling intensive agricultural lands in food productivity” (1988:108; see also Bernstein 1990; Bernstein et al. 1994). The area’s resources included shellfish (it had 350 squares miles of oyster beds), sea mammals, anadromous fish, and migratory birds—it is on the Atlantic flyway and the marshes provided enormously rich stopover spots for migrating birds. And, of course, there were also land mammals, including larger ones like white-tail deer and bear as well as many smaller ones. The area’s flora provided many kinds of nuts in addition to fruits and berries; trees, of course, supplied wood for tools, canoes, house frames, and bark for house coverings.

The indigenous people living along the coast of what would become New York shared a number of aspects of their way of life with other groups near and far, but other aspects were unique to them. Away from the coast, for example, peoples had a long history of raising crops and incorporating them into their diets. Archaeologists have shown that Native populations in the interior of New York began cooking and eating squash around three thousands years ago, adding maize to their diets over 2,000 years ago, and the common bean about 700 years ago (Hart 2008; Hart et al. 2007).<sup>6</sup> Yet, despite these major dietary and economic changes in neighboring communities, the coastal peoples here could afford to opt not to invest heavily in these crops. Instead they chose to continue to rely more on their traditional rich estuarine resources, although they did incorporate incidental farming into their sub-

sistence round of hunting, fishing, and gathering (Bridges 1994; Cantwell and Wall 2001:86–92, 109–114).<sup>7</sup> In the seventeenth century, at the time of the European incursions, the Munsee landscape was marked by small communities (Figure 11.2) located along the coast’s bays and inlets, with gardens for maize, beans, and squash, workshop and storage areas, burial grounds, and nearby fishing and hunting areas, all connected by criss-crossing trails (Cantwell and Wall 2001:114–116).

Regardless of the richness of its ecosystems, the Atlantic shore was an insurmountable barrier for peoples living there. Instead of looking east across the sea for exchanges of goods or new ideas, they looked to the interior of North America. Although their lives were comfortable, they lived on the periphery of the major Native proto-urban centers along the great rivers of the continent.

### ACQUISITION, APPROPRIATION, AND SETTLEMENT

But all of this changed when Europeans on the other side of the Atlantic began combing the world in search of wealth. After Europeans arrived in northeastern North America, Indian country began a dramatic transformation as it shifted from a Native to a European landscape and became a node on the global grid of the Dutch maritime empire. Although the land continued to be at the periphery, it was now no longer peripheral to the interior of the continent but to a distant European metropole. And instead of being the barrier it had been for millennia, its harbor was now a gateway to an emerging Atlantic world. This transformation started with Henry Hudson’s voyage in 1609, which claimed the land for the Dutch. The area’s potential for the fur trade was quickly realized and became the driving force behind its transformation, and Dutch-backed traders soon followed Hudson. But it wasn’t until the Dutch West India Company (the Company) received a monopoly for trade in the new colony of New Netherland in the early 1620s that real changes began and the area became a meeting place for peoples from three parts of the Atlantic world: the Americas, Europe, and Africa.

### A Windmill Atop a Native Site

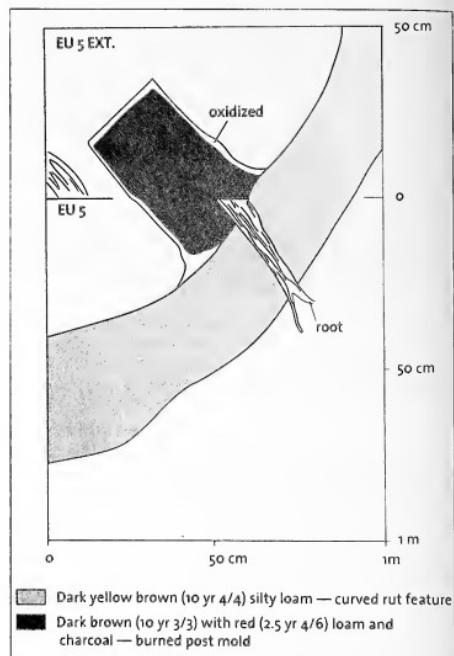
Although the details of the first European settlement of what would become New York have been lost (Jacobs 2005:42), in broad outline it seems that the Company sent a few dozen families along with a group of men to settle New Netherland; apparently eight of those men, in that initial push in the early 1620s, were left on what is now Governors Island, a stone’s throw from

Manhattan, to set up both a trading post and an entrepot for transferring goods from small boats to larger ships for the long ocean crossing (Gehring 2000:11–12). The Munsee name for the island was Pagannack or Nut Island, after its plentiful hickory, oak, and chestnut trees, and it had served as a fishing camp for generations; for them, it was in Canarsee territory. The Dutch, in one of their first acts of appropriation, gave it a Dutch version of that name, *Noten Eylant* (Cantwell and Wall 2001:297–298; Herbster 2007; Jacobs 2005:42).

Archaeologists James Garman, Holly Herbster, and Paul Russo of the Public Archaeology Laboratory have provided insights into this early shift in land use that transformed this part of Indian country into a gateway to the Atlantic world. Recently, when the U.S. Coast Guard, which was then in charge of Governors Island, was preparing to turn it over to the State of New York, the archaeologists, following federal guidelines, began work to see if there were any important archaeological sites there.<sup>8</sup> They discovered a circular stain about 35 feet in diameter, which in turn surrounded the remains of a series of squared-off, charred postmolds, measuring 25 to 50 cm on a side, left from wooden posts that had been driven into the ground (Figure 11.3).

Looking at the island's history, the archaeologists realized that the stain and postmolds could be the remains of the wind-powered sawmill that the Dutch West India Company had built there in 1625–1626, shortly after the first Dutch settlement in the harbor (Van Laer 1924:68, 265 n. 22). Examining drawings of co-eval windmills, the archaeologists realized that they might have found the remains of the smock which had housed the trestles on which the windmill sat. In 1639, the "sawmill standing on Noten island" along with "the implements at present therein, according to an inventory thereof," was leased to three settlers for three years (Van Laer 1974a:225–226). But by 1648, the windmill was in ruins and the Company ordered it dismantled or, if that was not possible, burned down, to salvage the iron from the structure (Van Laer 1974b:473–474); iron was in short supply in the colony. The charred remains of the posts that the archaeologists discovered showed that the decision had been made to burn the sawmill.

The wood from one of the posts was identified as native white oak, probably acquired nearby. Calibrated radiocarbon dates run on the same sample suggested a date between 1570 and 1630—a time frame that fits the building of the Dutch windmill well. In the soil that made up both the postmolds and the stain, there were corroded hand-wrought nails as well as Native pottery and debris from stone tool making, showing that the sawmill had been built on top of an earlier Native site. Other traces of this earlier site include several trash or storage pits and a number of artifacts, including



**Figure 11.3.** A planview showing part of the curved stain and the rectangular post mold from the windmill on Governors Island. The Public Archaeology Laboratory, Inc., Pawtucket, Rhode Island.

around 20 sherds from cooking or storage pots (Garman and Herbster 1996; Garman and Russo 1998:62–69; Herbster 2007).

Near the windmill, the archaeologists found a glass trade bead. The bead, a Kidd type IVk4, Dutch-manufactured, compound round bead, is similar to some found in upstate New York at Native American sites that date to sometime before around 1635 (Garman and Herbster 1996). This bead is the sole piece of evidence we have that suggests that there was trade taking place on the island in the early years of the colony.

These handfuls of artifacts, the stains in the ground, and pieces of carbonized wood show us the beginnings of the story of the transformation of the land from Indian country to New Amsterdam as a colonial space at the edge of empire. A Dutch-style windmill, that quintessential symbol of *patria*, built to exploit a

native resource—lumber—both for settlement and for export and placed literally on top of and superceding a Native site, was now standing in, and challenging Indian country.

### Producing a Colonial Space: Settling and Trading in New Amsterdam

But these steps toward the transformation of Indian country into a colonial space were faltering at first, and the settlement on Governors Island was short-lived. In 1626, after a series of incidents in the upper Hudson Valley with the Mohawk, the Company's most important partners in the fur trade, Peter Minuit, now Company director of New Netherland, decided to move the colonists from all the outlying trading posts to a central, secure location at the tip of Manhattan Island, near the mouth of the Hudson River. *Noten Eylant* was too small for such a settlement, and furthermore, it could not provide enough pasture for the Company's cattle and other livestock (Van Laer 1924:260, n.8). So that summer Minuit undertook negotiations with Munsee sachems to "buy" the island. Today we know that these negotiations that led to the further transformation of Indian country were underlain by a basic cultural misunderstanding and were, along with the transformations of the land, among the many causes of wars yet to come (Cantwell and Wall 2001:143–143; Grumet 1989a; on wars, see also Haefeli 1991; Merwick 2005, 2006; Otto 2006; Starna 2003; Trelease 1960).<sup>9</sup>

Minuit's choice of Manhattan was a good one. From there, the Company could protect the river and the fur trade against Spanish or English incursions; it was also on what would turn out to be from the contemporary European perspective one of the finest natural harbors in North America—the landmass of the island could protect the East River port and the small wooden ships that anchored there from the prevailing westerly winds. In addition, the East River rarely froze over, so the port was usually open year-round, unlike the Hudson River port at Fort Orange (Cantwell and Wall 2009; Merwick 1990). But the colony's growth continued to falter because it was hard to attract settlers. It was only after the Company lifted its monopoly and opened the fur trade to everyone in 1639 and the end of the first Indian Wars in the 1640s that New Amsterdam began to grow substantially. Then the pace of the subordination of a Native land quickened as new European settlers attempted to create a northern European landscape in Indian country.

When archaeologist Joel Grossman and his crew excavated at the Broad Financial Center site on Pearl Street in 1984 (Grossman 1985), they found archaeological evidence documenting this European transformation of

the landscape. Inside an old pit lined with double wooden barrels, they came across artifacts from an early home on Pearl Street. This feature was on the property that Jacob Hay sold to Cornelis van Tienhoven in 1653, and the early date of the materials found inside it suggest that it was abandoned and filled with artifacts from the Hay house around the time that Van Tienhoven redeveloped the property.<sup>10</sup> Many of the objects in the pit were architectural in nature and probably had formed part of the fabric of the Hay house. These include pieces of yellow brick, the quintessential building material associated with *patria*, as well as traditional red pantiles for making fire-proof roofs, and several large pieces of delft tiles (Figure 11.4), which had probably been used to line a fireplace or a baseboard in the old Hay house. Domestic artifacts include a piece of Westerwald stoneware, made in the Rhine valley, and parts of a *roe-mer*, a Dutch hollow-stemmed goblet with a flared base, which still had its prunts, or small lumps of glass the size and shape of raspberries, applied to its outside, both for decoration and to make the glass easier to hold. The artifacts suggest that both the house, built within a few decades of the founding of the colony, and the domestic appurtenances of the people who lived in it, were the material manifestations of their attempts to recreate a northern European landscape and a northern European home in Indian country. These finds from New Amsterdam support the interpretation first advanced by archaeologist Paul Huey based on his work at Fort Orange, in today's Albany (e.g., 1988), that ways of life in New Netherland embodied "a material culture almost fully as sophisticated as that of the village and farms of true mid-17th century Netherlands" (Huey 1988:616–617). The artifacts from this house make up the oldest collection of materials that we have from a home in Dutch New Amsterdam.

With the introduction of free trade, New Amsterdam became the staple port of the colony, where all goods were processed and duties on them paid as they entered or left New Netherland (Maika 1995:26). There, ships received clearance and warehouses were built.



Figure 11.4. A delft tile from the Hay house on Pearl Street (NYSM A-A2005.29E.521.11). Copyright New York State Museum, Albany, NY.

And as the potential for trade grew, so did the number of traders. There were Dutch merchants and their agents as well as others who came to make their fortunes in trade. Most were involved in the fur trade, and some also traded in tobacco and/or imported European consumer goods for other New Netherlanders and their Native trading partners, as well as for English settlers in neighboring New England and the Chesapeake. And beginning in the 1650s, New Amsterdam merchants began trading in enslaved Africans (O'Callaghan 1868:127).

The Company had its warehouse on the waterfront, and right next door to it was a private warehouse that Augustine Heermans had built in the late 1640s. Born in Prague, Heermans came to New Netherland as an agent for the Amsterdam firm of Peter Gabry, where he traded in furs, tobacco, provisions, and wines. He also was active in the trade in enslaved Africans. (Stokes 1915–1928:I:129, II:266–267; Cantwell and Wall 2001:114).

While excavating at the Broad Financial Center site where they found traces of the Hay house, Joel Grossman and his crew also found remains from Heermans's warehouse: the footings from some of the walls as well as a large section of the basement floor (Grossman 1985). Their excavations revealed that the floor had been paved with river cobbles. The warehouse itself and some of the artifacts discovered on its basement floor epitomize the colony's full-fledged entry into the Atlantic world during this open-trade era. The archaeologists unearthed artifacts associated with making calculations and keeping accounts, including a slate pencil and a jeton, or casting counter (Figure 11.5). The latter commemorated Prince Maurice of Nassau's election as Stadtholder in the Netherlands in 1590. With its image of six hands clutching a pillar surmounted by a Freedom Hat on the obverse and two hands holding six arrows on the reverse, it symbolized the unity of the six United Provinces in their fight against Spain (Van Loon 1994:5–6). For centuries, European merchants had made their calculations in Roman numerals with jetons or counters like this one and counting boards or cloths, a manual technique similar to using an abacus. But by the beginning of the seventeenth century, much of Europe was making the switch from Roman to Arabic numerals, which were easier to manipulate for the complicated computations needed in the new global economy, and began using pens or pencils (see Hain 1967:154, 155, 162–163 on casting counters). At that time, some jetons simply became medallions. But the use of jetons and counting boards, a highly visual form of calculation, remained important, especially for the illiterate, well into the eighteenth century (Meskens 1996:155). At Heermans's warehouse, warehouse workers, African



Figure 11.5. Both sides of the jeton or counter found on the floor of Heermans's warehouse (NYSM A-A2005.29E.133.28). Copyright New York State Museum, Albany, NY.

and European alike, may have used counters in their reckoning and possibly in negotiating with Native American customers, who were accustomed to using another visual method, tally sticks, to make their calculations (Jameson 1909:230–231; Venema 2003:159–160). We don't know how this particular jeton was used—with a counting board to convert guilders to wampum, beavers, or tobacco; solely to commemorate the unification of the United Provinces; as a gambling token; or all of the above. In any case, the very fact of its presence and that of the pencil leads us to consider this major change in reckoning that facilitated the growth of the modern economy, which was also manifested in the warehouse as well as in New Amsterdam itself and which provided the motivating force for the subordination of Indian country.

By the mid-1650s, parts of the settlement in some ways had begun to resemble a small Medieval northern European town, albeit a somewhat ramshackle one. Its main street ran along the shore east of the fort; this was where the homes of some of the settlers (like Jacob Hay), the warehouses (including that of Augustine Heermans), and the new Stadt Huys or City Hall were located. For the most part, buildings were built in the Dutch style with their gables facing the street (see, e.g., Heermans ca. 1650). But the town had a definite colonial twist. Although Europeans filled its streets, so did Native peoples and Africans both free and enslaved. Indians from many different polities came from near and far to visit their trading partners, on diplomatic missions or to negotiate land sales. And Africans came too, albeit most of them involuntarily. At first there were only a few dozen, most of whom, having been captured as part of the prize on Portuguese ships, were enslaved and owned by the Company (Heywood and Thornton 2007).<sup>11</sup> But later on there were many more, again mostly enslaved but owned by private individuals. New Amsterdam was now a colonial town where people from three continents impinged upon each other (Cantwell and Wall 2009).

## THE SUBORDINATION OF NATIVE SPACE

As settlers began flocking to New Amsterdam, the colonial city began to grow and, in that process, new kinds of spaces and landscapes began to replace indigenous ones. One of the new spaces planted in Indian country was an African community. In 1643, Director Willem Kieft began to make grants of land to some of the Company's enslaved Africans (Gehring 1980b).<sup>12</sup> These properties were located about a half a mile north of New Amsterdam, on either side of the Bowery. Although some scholars have said that these grants were made in the Company's interest because the African settlers served as a buffer against potential Native or English attacks, at the same time they also facilitated the Africans' development of their own community, away from the oversight of the Europeans (Van Zandt 1998). We do not know if the Africans built their farmsteads in an African or European tradition, but we can assume that they did not build them in the Indian tradition, and that from the Native perspective they constituted a further appropriation and alienation of their land. For over a generation, this community served as a landmark on the landscape for people—European, Native, and African alike—traveling overland into and out of the city. But by the end of the century, Europeans had appropriated practically all of this African land (Cantwell and Wall 2009; Stokes 1915–28:VI:passim.).

As the Europeans spread out into Indian country, some bringing enslaved Africans along, they cut down forests for lumber, cleared and plowed fields, built fences, and planted European crops as well as those that they had adopted from their Indian neighbors. In addition, they let their livestock roam free on the land. The combinations of these activities—the clearing, fencing, and the importation of plants and animals alien to the area—irrevocably changed the nature of the land on which the Munsee had long depended. Munsee gardens were destroyed by wandering European animals, especially pigs and dogs. Although the Company acknowledged this problem and tried to resolve it (see, e.g., Van Laer 1974b:73–74; see also Jacobs 2005:223–226 for a further discussion of these issues and how they affected the Dutch), that attempt was in vain. Crop destruction became one of the major causes of the increase in violence that brought havoc to the area in the 1640s and 1650s (Jameson 1909:209, 277; Merwick 2005; Williams 1995). European livestock, however, did more than damage Munsee crops and provoke conflicts. These animals also had a "direct impact on American ecosystems" and the effect of this impact only becomes clear, as William Cronon has argued for neighboring New England, "when they are treated as integral elements in a complex system of environmental and cul-

tural relationships. The pig was not merely a pig but a creature bound among other things to the fence, the dandelion, and a very special definition of property" (1983:14). European animals like pigs altered local Native ecosystems and cultural landscapes and subordinated them to European ones. And as European activities radically altered these ecosystems, Native subsistence patterns were forever changed. By default, many Munsee families could no longer rely on their customary food stuffs and they became increasingly dependent on the colonists for their subsistence.

Evidence of the problems posed to the Indians by a combination of changing ecosystems, new subsistence strategies, and an increasing dependence on the colonists for survival comes from four sites in coastal New York dug a century ago by three pioneering archaeologists who were among the first to work in the United States. Three of the sites are in the Bronx: Weir Creek, also known as Throgs Neck, tested in 1900 and 1917 by M. R. Harrington and subsequently excavated in 1918 by Alanson Skinner and Amos Oneroad (Figure 11.6); Clasons Point, which Skinner argued was a substantial Siwanoy settlement of 60 households known historically as Snakapins and which he and Oneroad dug in 1918; and Pelham Knolls, which Harrington excavated in 1899. The fourth site, the Bowmans Brook site in Staten Island, was collected by Skinner between 1903–1907 as a new steel plant and railway cut were being put in. At all four of these Native sites, the bones of European domesticated animals like pigs and cattle, some bearing butcher marks from metal saws, were found amidst traditional Munsee refuse (Ceci 1977:289; Skinner 1919: 113, 118, 123). We do not know how those bones arrived in these Munsee sites. The Native peoples could have raised, bought, or stolen them as livestock;



Figure 11.6. Skinner and Oneroad excavating the Weir Creek site in 1918.

National Museum of the American Indian, Smithsonian Institution.

they could have bought or stolen the meat; or the meat or the animals could have been given to them. But no matter how the meat got there, its tangible presence in the form of the bones brings home the profound and irrevocable economic and ecological changes taking place along the coast: the competition for land, the loss of traditional food sources, the spread of alien crops and animals, the temptation to seize livestock as though it were game; and the increasing reliance on Europeans whose interests and economies were totally incompatible (Cantwell and Wall 2001:146). Again, what William Cronon writes of neighboring New England applies to coastal New York: a “distant world and its inhabitants gradually [became] part of another people’s ecosystem . . . but in the process, the landscape . . . was so transformed that the Indian’s earlier way of interacting with their environment became impossible” (1983:14–15). The appropriation and subordination of indigenous land had become complete.

The sites discussed here, pre-colonial and colonial, were excavated over the span of the last century by archaeologists, professional and avocational alike, working with a variety of field and analytical techniques. This archaeological record, recovered from beneath the modern post-colonial city of New York, illuminates some of the many complex processes involved in the building of the colonial city of New Amsterdam and the effects these processes had on the transformation of an indigenous space into a seventeenth-century colonial city.

As the end of the seventeenth century neared, the European settlers and the enslaved Africans began outnumbering the Native population. The entangled effects of trade, war, increasing European colonization, establishment of new communities, land dispossession, and changing ecosystems were only part of the problems the Munsee faced. The most catastrophic were biological ones, the European diseases which killed countless Munsees and other Indian peoples and widowed the land.<sup>13</sup> In 1656, New Netherlander Adriaen van der Donck reported that his Indian neighbors told him that “their numbers have dwindled owing to smallpox and other causes to the extent that there is now barely one for every ten . . .” (Van der Donck 2008:69). It is difficult to estimate the exact number of Indian people who died along the coast during these epidemics. Modern estimates of the deaths for Munsee living in the greater area range from 50 percent to as high as 91 percent (Dowd 1992; Goddard 1978; Grumet 1989b, 1990; Salwen 1975; Snow 1980, 1992; Snow and Lamphear 1988). But whatever the actual numbers may have been, this was an enormous demographic, cultural, and personal catastrophe with profound social and economic consequences (Jones 2003; Starna 1992). The central role that

tragedy played in the transformation of the lives of the Munsees, their homeland, and the emergence of the Dutch settler colony has to be recognized and understood.<sup>14</sup>

Near the end of the seventeenth century, one Munsee sadly noted about his own people who had lived in the general area, “two of them die to every one Christian that comes here” (cited in Dowd 1992:43). These newcomers needed land and the Munsees found themselves selling it. Their sachems played a delicate game in making these sales, hoping to buy protection, time, and recompense of some kind from the Europeans. Land was now the only entree that they had left to the new economy. But these sales, no matter how carefully crafted, did not stop the inevitable. The land that makes up the five boroughs of today’s New York City was essentially all sold, piece by piece, by the end of the seventeenth century (Bolton 1920; Grumet 1989a).

In the brief space of three-quarters of a century, “Indian country” with its 13,000-year history had been transformed into a slave-holding, European settler-colony, and New Amsterdam itself had become New York. The coastal area would never again be on the periphery of the interior, as it was in pre-colonial times, and it would be on the periphery of Europe only briefly. It was on its way to becoming a world capital in its own right (Cantwell and Wall 2001:145, 148).

## THE POST-COLONIAL CITY

Certainly back in the seventeenth century, no one could have predicted the future of New Amsterdam. Today, that colonial city that was planted in an indigenous landscape and became a space where Africans, Europeans, and Natives met and entangled their lives, is buried beneath the modern post-colonial city of New York, which is now a major node on the grid of yet another empire.

The geographer Jane Jacobs has suggested that many post-colonial cities are haunted by their colonial past (1996:163). This is certainly true in New York, where these “ghosts of the past” were made tangible and brought forward in a concrete way into the present by the discovery of two archaeological sites in recent decades. There, archaeologists uncovered the human remains from two groups of people, African and Native, whose presence in the early history of the area is frequently forgotten.

In 1991, archaeologists discovered the African Burial Ground, a colonial cemetery not far from the seventeenth-century African community in today’s lower Manhattan, just a few blocks from City Hall (General Services Administration n.d.). Some say a few of these

graves date to New Amsterdam days (e.g., Moore 2005:52). But even if, as most scholars contend, the people buried there were interred only later, in the eighteenth century, many are likely the descendants of the Africans who lived in New Amsterdam, probably even in the African community set up just beyond the city's edge. This cemetery and its memorial bring home the presence of enslaved and free Africans in the colonial city and their role in building that city, and add nuances to the idea of Dutch tolerance in the seventeenth century. Furthermore, they underline the importance of the colonial past in today's post-colonial city.

When renovations began on the Main Building of Ellis Island in preparation for the opening of the Museum of Immigration in the 1980s, archaeologists discovered disturbed human remains and a Native American midden. The human remains were identified, using morphological criteria, as pre-colonial Native Americans (Cantwell 1992–1993: 203–206, 2000:93–96; Pousson 1986; Wall and Cantwell 2004:13–16).<sup>15</sup> The fact that the Museum of Immigration, honoring the millions of immigrants who came to a "New World," was (like the Dutch windmill) built on top of a Native American site, belies the very idea of a *terra nullius* or a wilderness. Instead, it is a vivid and material reminder that this was already an "Old World," not only when Europeans immigrated here by the millions in the nineteenth century, but also when they first arrived and started to build New Amsterdam in the seventeenth.

In both cases, after the discovery of these ancestral remains, their African American and Native descendants, real or metaphorical, were active in putting these "ghosts" to rest in today's post-colonial city. Modern-day African Americans were extremely active in determining the direction of the analysis of the human remains, their reburial, and the commemoration of the African Burial Ground (Cantwell and Wall 2001; LaRoche and Blakey 1997). Today, surrounded by government office buildings in the civic center of modern New York, the site is a National Monument and its unexcavated portion is topped by a memorial (Figure 11.7). And after the initial discoveries on Ellis Island, representatives of the Delaware, of which the Munsee are a part, traveled from Oklahoma and Canada, where they now live, back to their homeland in New York to bless the bones of their ancestors before those bones were analyzed. Later, in 2003, they reburied the remains of their ancestors in a private ceremony in a quiet spot behind the Museum of Immigration (Figure 11.8; Cantwell 1992–1993, 2000; Crespi 1987; Wall and Cantwell 2004).

These two sites and their memorials are reminders of aspects of our history that many never knew or would prefer to forget. They provide a material "space" in the



Figure 11.7. The memorial at the African Burial Ground, 2008.  
Photograph by Diane diZerega Wall.



Figure 11.8. The Native American graves at Ellis Island, 2008.  
Photograph Anne-Marie Cantwell.

post-colonial city in which modern-day people, members of descendant communities as well as others, can ponder the appropriation of that space and those whose unheralded efforts in the roots of the city have been forgotten or ignored. These bones, reintroduced into the modern city through the work of archaeologists, were re-buried in the twenty-first century by descendants whom the dead never knew. All those present at the original burial ceremonies are themselves long dead. The burials of the bones of these individuals, and their memorializing, obviously had very different meanings for their post-colonial mourners than they had for the mourners at their primary interments. Then, those meanings may have been strongly related to the grief felt at the loss of individual loved ones. In addition, critical ideas prevalent in the ancestral communities about spirituality, identity, and place, as well as the

reconstitution of social relationships among the living, were surely important. The group reburials in the post-colonial city by the descendant communities, on the other hand, are related to modern beliefs regarding identity, place, and social justice as well as to spiritual and ethical concerns. They are also related to the loss of ancestors and to the forging of strong bonds between the living and the dead.

David Dinkins, mayor of New York at the time of the discovery of the African Burial Ground, noted shortly thereafter that “[u]ntil a few years ago, African-American New Yorkers had no site to call our own. There was no place that said, we were here, we contributed, we played a significant role in New York’s history right from the beginning. Now we—their descendants—have the symbol of our heritage embodied in Lower Manhattan’s African Burial Ground . . . irrefutable testimony to the contributions and suffering of our ancestors” (quoted in LaRoche and Blakey 1997:100).

On her way to one of the first blessings of the human remains recovered from beneath the Main Building on Ellis Island, Linda Poolaw, then vice president of the Delaware Tribe of Western Oklahoma, recounted her voyage back to her homeland for “the honor of viewing the bones.” She writes, “[W]ay above the clouds, looking down on the ground I was trying to imagine my ancestors crossing all over that land from the East Coast. How difficult it must have been. . . . I imagined that this was where my roots are and my people, the remains of the people I was going to view in a few hours being proof of that” (1986:29). Today, standing near their graves on Ellis Island, a visitor can see lower Manhattan, beneath which some of New Amsterdam and the Indian country that it superceded are still buried.

These two burial sites as well as all the other sites we have discussed in this essay challenge traditional views of colonial New Amsterdam. Taking the long view that only archaeology can provide, and looking at both pre-colonial and colonial sites that stretch across a wide expanse of time, allows us to see the effects on space and people as the colonial city of New Amsterdam was produced through the subordination of an indigenous land. As more sites are discovered beneath the modern city, more old ideas will be challenged and new questions asked, thus enriching our knowledge of our past.

## ACKNOWLEDGMENTS

We wish to thank Penelope Drooker, John Hart, and Elizabeth Peña for inviting us to participate in the symposium honoring Charles Fisher and encouraging us to submit this revised version of our paper for publication. In addition, we would like to thank Francis D. Campbell,

librarian at the American Numismatic Society; Andrea Lain, archaeological collections manager at the New York State Museum; and Lynn Rakos of the U.S. Army Corps of Engineers, New York District; for helping us with our research. Furthermore, we are grateful for the insightful comments of the editors and the outside reviewers. All errors of fact and interpretation, however, are unfortunately our own.

## ENDNOTES

1. For discussions of this concept, see Calloway 1997, 1999; Cronon 1983; or Jennings 1976. For examples, see Briderbaugh 1968 or White 1987. More recently, Shorto 2004 repeatedly makes references to a “wilderness” surrounding New Amsterdam.
2. The phrase “edge of empire” is from Jacobs (1996).
3. The indigenous people living in coastal New York at the time of the first European settlements were the Munsee, sometimes known as the Lenape. They were part of a larger group known as the Delaware, with whom they were united by their similar Algonquian languages and cultures. The Delaware in New York spoke a dialect known as Munsee and had ties with speakers of similar dialects across a broad swath stretching from the lower Hudson Valley and western Long Island to northern New Jersey and across to north-eastern Pennsylvania. Although we collectively call them the Munsee after their dialect, there was no single Munsee political unit at the time of the European arrivals. There were, however, a number of autonomous groups named after a popular leader or place. The names of some of these groups include the Carnarsee, Rechawanack, Wiechquaeskeck, and Siwanoy who were in the New York City area in the seventeenth century (Bolton 1920:11–50; Goddard 1978; Grumet 1981:24–26, 1982).
4. The evidence we have for the earliest populations in the area is for Paleoindians. Whether there were earlier, pre-Paleoindian populations is not known; we have no evidence either to confirm or deny that. The question of who were the first Americans, in the New York City area or elsewhere, is beyond the scope and thrust of this essay. We do, however, agree with Fagan (2005:71) that that particular question is among the most contentious in American archaeology and that “[a]nyone studying the first American sets sail in hazardous academic seas, beset on every side by passionate emotions and contradictory scientific information.” See Ridge (2003:38) for optimum times during the Wisconsinan deglaciation for human migrations into the area.
5. Again, a full discussion of the many changes during these millennia is beyond the scope and thrust of this essay. See Schultenrein et al. (2007) for a discussion of sea level rise and associated landscape transformations; Ridge (2003), Stanford and Harper (1991) and Uchupi et al. (2001) on glacial lakes and meltwater; and Fiedel (2001) and response by Robinson (2003) on some of the questions relating to population, climatic change, and culture history during this long period. See also Kowaleski (1995) or Funk (1991, 1996).
6. Recent phytolith analysis of charred cooking residues in pots shows that the introduction of crops of maize and squash to the diets of people in the interior of New York has a long history, with starting dates of  $2270 \pm 35$  B.P. (cal 2  $\sigma$  2348–2157 B.P.) and  $2905 \pm 35$  B.P. (cal 2  $\sigma$  3205–2947 B.P.), respectively (Hart 2008; Hart et al. 2007). Beams make a later appearance in the region. There is no convincing macrobotanical evidence for beans before cal 700–650 B.P. and the appearance of a combined maize-bean-squash agricultural system has a briefer history in the state as shown by the pooled mean date

- of  $887 \pm 30$  B.P. (cal 2 O 674–559 B.P.) from the Roundtop site (Hart 2008:90). As Hart (2008:90) has pointed out, the implications of these different crop histories raise questions about traditional views of settlement and subsistence strategies in the Northeast.
7. See, for example, Bendremer (1999), Bernstein (1999), and Chilton (1999) for related discussions for adjacent regions.
  8. The study was done to fulfill the U.S. Coast Guard's legal obligations under Sections 106 and 110(f) of the National Preservation Act of 1966 (as amended) and related statutes and regulations, prior to the transfer of its ownership away from the federal government (Garman and Herbster 1996).
  9. The Dutch looked on land as a commodity that could be bought and sold, and they firmly believed that once they had purchased land, their rights in it were absolute. But the Munsee held a completely different view. For the Munsee, land was seen as held in trust for the Creator, Kishelmulong, and as such could never be sold or even owned. Therefore, their land was inalienable; they could not give up their rights to it permanently. What is interesting is that although this purchase is a favorite myth covering the birth of America, even today we do not know the names of the individuals who participated in it. We do not know the name(s) of the Munsees who made the sale and some scholars also disagree about who acted for the Company—Willem Verhulst at the end of his term as director or Peter Minuit at the beginning of his (see Gehring [1980a] for a discussion of this question; Rink [1986:86–87]; Weslager [1968]); to the present writers the Minuit interpretation seems best.
  10. It is not clear whether this house was first built by Thomas Hall, who received the original European grant for this parcel in 1647, or by Hay, who acquired it from Hall the following year (Stokes 1915:1928 II:384–385; I:129).
  11. This is not to say that there were no enslaved Africans in the Netherlands at this time, although there was ambivalence about the morality of slavery in the home country. As slavery became more common in the Dutch colonies in the Americas and elsewhere in the seventeenth century, it became more prevalent in the Netherlands (Blakely 1993:227). Most of the Africans who lived there were brought back as slaves by Dutch who had served in the colonies, although sometimes the idea of bringing an enslaved African back to the Netherlands was considered but rejected. In 1659, for example, Jan Baptiste van Rensselaer in Amsterdam asked his brother Jeremias in New Netherland to send his slave Andries to him because he needed Andries to take care of his horse. Jeremias demurred after discussing the idea with some relatives who thought "that it would [be] but foolishness to have him serve . . . in a free country, as he would have too much of a temperament to do that" (Jacobs 2005:380). But others apparently did not share these qualms. There are hundreds of portraits of Dutch burgher families dating to the seventeenth and eighteenth century that include an African servant, usually a young boy. Although some of these boys may have been stock figures, included in the portrait to confer status on the family, the sheer number of these portraits suggests that having African servants or slaves was not uncommon among the rich. Once freed, it was fairly easy during this early period for African men to marry Dutch women and "melt" into Dutch society (Blakely 1993:105, 228–230).
  12. Many of these same Africans petitioned Kieft for their freedom in 1644, and although they were successful, their freedom came with conditions. In addition to making annual payments to the Company of specified amounts of produce, Kieft also determined that their children, born and unborn, would remain enslaved by the Company (Van Laer 1974b:213).
  13. The concept of a widowed land comes from Jennings (1976:30).
  14. See Dobyns 1983; Grumet 1990; Snow 1980; Snow and Lamphear 1988 for general problems in assessing mortality figures. See Starra 1992 for a general discussion of the ideological and social consequences for indigenous peoples in the Northeast of the diseases that the Europeans introduced and Jones 2003 for an important revisioning of the "virgin soil" epidemics.
  15. For discussions of the dating, see Cantwell (1992–1993, 2000) and Pousson (1986).

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## THE SUNDLER SITES: Reconstructing the Late Pleistocene Landscape and Its People in the Capital Region of New York

James W. Bradley, Meredith Younge, and Andrew Kozlowski

When we think of Chuck Fisher, we usually think of historical archaeology. However, Chuck's interests were broad and covered the entire range of archaeological sites in New York's Capital Region. This project began in September 2007 when Chuck and James Bradley, the senior author of this paper, met at the New York State Museum to examine a group of Paleoindian artifacts collected by the late Carl Sundler and published in Ritchie's *Traces of Early Man* (1957).

Carl Sundler was one of several active amateur archaeologists who lived in the Capital Region during the 1950s and 1960s. Professionally, Sundler was a math teacher at South Colonie Central High School, and he lived on Exchange Street in West Albany. He was a longtime member of the Van Epps-Hartley Chapter of the New York State Archaeological Association (NYSAA) and, with his wife, was good friends with Charlie and Gwen Gillette, who worked at the New York State Museum.

While Sundler had a particular interest in the large, deeply stratified sites along the Hudson River in Menands, he also surface collected from the market gardens and farms near his house. The area between Sand Creek and Shaker Roads was a frequent destination. These "sand flats west and northwest of Albany" were well known to local collectors. As one early twentieth-century observer noted, "Almost every farmer can produce a cigar box full of arrow and spear points, which have been picked up from time to time in plowing. Great opportunity is offered to the intelligent collector . . . in this region" (Parker 1922:480, 485). Sundler certainly met that definition.

New York State Archaeologist William Ritchie reported five Paleoindian artifacts from Sundler's collection. These included two fluted points, one complete and the other fragmentary, as well as a set of three unifacial tools of Pennsylvania jasper. Our goal was to locate these pieces, clarify where Sundler had found them, and determine if any additional information or artifacts were present. With the exception of one of the jasper

unifaces, we quickly found these artifacts in the New York State Museum's collections. The big surprise was that we also found another two dozen Paleoindian artifacts that someone, perhaps Ritchie, had boxed separately from the rest of Sundler's collection. Clarifying where these artifacts had been found proved to be a more complicated matter.

At this point, Chuck became too ill to continue working on the project. Fortunately, two other Museum colleagues—Meredith Younge from Anthropology Collections and Andrew Kozlowski, Museum surficial geologist—joined the project and together we have continued to reconstruct the story of Sundler's discoveries.

### THE ASSEMBLAGE

All together, the Paleoindian assemblage in Sundler's collection contains around 30 artifacts.

#### Bifaces

Only two bifaces are included, and Ritchie reported both briefly (Ritchie 1957:86–87; Plate 2B.b). The first is a small fluted point (NYSM A-46934.010). It is 40 mm in length, 25 mm wide at midsection, 23.5 mm wide at the base, and 4 mm thick (1.575 x 0.985 [0.925] x 0.157 in.). This point has sides with a face angle of 94 degrees, slight basal ears, and a 4 mm (0.157 in.)-deep basal concavity. Morphologically, this point would fit comfortably into the "Bull Brook-West Athens Hill" category (Bradley et al. 2008:136–41). It is also made of an unusual material. Ritchie called it a "peculiar quartzite" and observed that it was deeply weathered. Careful examination indicates that the material is a spherulitic rhyolite. According to New Hampshire State Archaeologist Dick Boisvert and geologist Steve Pollock, it appears to be a variety of the Jefferson rhyolite from northern New Hampshire (Pollock et al. 2007).



12.1. Fluted points from the Sundler collection, obverse (a. NYSM A-46934.010; b. NYSM A-46935.014).

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This point is heavily reworked and is probably a re-tipped base (Figure 12.1a and Figure 12.2a). The second piece is the midsection from a fluted point (NYSM A-46935.014). It is 19 mm long, 29 mm wide, and 5 mm thick ( $0.75 \times 1.14 \times 0.20$  in), and is made from a gray/green chert that occurs throughout the mid-Hudson valley. It is fluted on the obverse face only; the reverse face also appears to be fluted, but the rings of compression run the wrong way indicating that this pseudo flute was probably the result of an impact fracture (Figure 12.1b and Figure 12.2b).

### Unifaces

The majority of the Paleoindian artifacts collected by Sundler are unifacial tools. Of particular interest are the three artifacts of "red jasper" illustrated by Ritchie and described as "all found within a small blowout on a sand ridge" along the upper portion of Sand Creek (1957:Pl. 11). Ritchie identified these as follows:

- A. a combined spokeshave scraper and graver,
- B. a knife or side scraper, and
- C. a small side scraper "blunted as from use as a fire-striker."

Our examination of the two available pieces confirms Ritchie's assessment. The "combined spokeshave scraper and graver" (NYSM A-46934.009) appears to have been made from a bifacial thinning flake and is 28 mm long, 15 mm wide, and 3 mm thick ( $1.10 \times 0.59 \times 0.12$  in.). It has fine edge wear on both of the long sides and well-defined graving spur on the distal end (Figure 12.3a). The larger "knife or side scraper" is made from a thick, blade-like flake (NYSM A-46934.008). It is 79 mm long, 37 mm wide, and 10 mm



12.2. Fluted points from the Sundler collection, reverse (a. NYSM A-46934.010; b. NYSM A-46935.014).

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thick ( $3.11 \times 1.46 \times 0.39$  in.). The lateral edges show extensive unifacial re-sharpening (Figure 12.3b). Both pieces appear to have been heat treated, intentionally or not, and have pot lid fractures on their ventral surfaces. These artifacts are also unusual in that they are the only examples of Pennsylvania jasper in the Sundler assemblage. Although this material, actually a fine-grained quartzite (Holland 2003:134), originates from southeastern Pennsylvania, it is a frequent minority lithic material on Early Paleoindian sites elsewhere in the region (Funk 2004:107, Table 43; Hatch and Maxham 1995).

Most of the remaining tools are best described as side scrapers, end scrapers, or a combination of the two.



12.3. Pennsylvania jasper unifaces from the Sundler collection, obverse (a. NYSM A-46934.009; b. NYSM A-46934.008).

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Side scrapers occur in two basic shapes. The first type was made from a large bifacial thinning flake and often has an asymmetrical, "ear-shaped" form. Four examples are included in the Sundler assemblage. They are summarized in Table 12.1 and illustrated in Figure 12.4. The other type was made from blades.<sup>1</sup> These blades, in turn, were used as parallel-sided cutting tools. The Sundler assemblage includes one large, minimally utilized blade and two other heavily used examples, one of which is complete, the other fragmentary (Table 12.1, Figure 12.5).

End scrapers are the most common artifact form. These appear to be evenly divided between those made from blades and those made from bifacial thinning flakes. An example of the latter is NYSM A-46934.007 (Figure 12.6). This piece is distinctive, not due to its form, but because it has a specific and unique provenience. This is discussed further below. The other 12 examples exhibit a wide range in size, lithic material, and use (Table 12.1, Figure 12.7). In general, these end scrapers are smaller than those usually found on Paleoindian sites. Most show extensive wear and resharpening, and appear to have been discarded at the end of their useful lives.<sup>2</sup>

The remaining five artifacts are in a class of their own, neither bifaces nor unifaces. Frequently referred to as *pieces esquillees* or "splintered pieces," these artifacts were battered in a bi-polar fashion, often resulting in crushed or heavily spalled edges (Lothrop and Gramly 1982). While their function remains unclear, such artifacts are a distinctive component of many Paleoindian assemblages in the Northeast (Table 12.1, Figure 12.8).

What do these artifacts tell us? Interpreting them does have some serious limitations. They are not a true archaeological assemblage since, with the exception of the three jasper pieces, we do not know whether any of



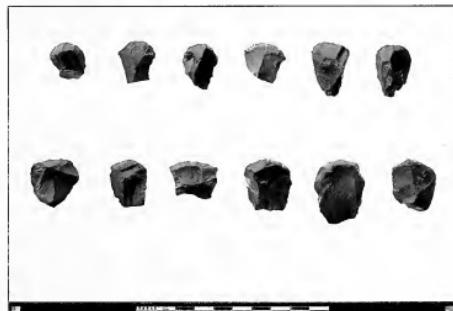
12.5. Blade and scrapers made from blades (NYSM A-46935.018, A-46935.022, A-46935.036).  
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12.6. Single end scraper (NYSM A-46934.007).  
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12.4. Four side scrapers made from thinning flakes (NYSM A-46935.017, A-46935.019-020).  
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12.7. Remaining end scrapers (NYSM A-46935.023-034).  
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**Table 12.1.** Sundler Collection.

Catalog Number	Object	Figure Number	Description
A-46934.010	Whole projectile point	Figures 12.1a, 12.2a	Fluted projectile point of spherulitic rhyolite, a retipped base, heavily weathered. Peculiar in having secondary silica around each grain.
A-46935.014	Projectile point fragment	Figures 12.1b, 12.2b	Fluted projectile point, mid section, gray/green chert. Fluted on obverse; pseudo flute on reverse caused by impact fracture.
A-46934.009	Graver	Figure 12.3a	Spokeshave/graver, Pennsylvania red jasper, fire-spalled on reverse.
A-46934.008	Knife	Figure 12.3b	Side scraper/knife, Pennsylvania red jasper, fire-spalled on reverse.
A-46935.017	Side scraper	Figure 12.4	Asymmetrical sidescraper, light gray/tan, Eastern Onondaga chert. Thick surface, combination side/end scraper, rougher use? edgewear.
A-46935.019	Side scraper	Figure 12.4	Asymmetrical sidescraper, dull dark grey chert (slate-like), very thin, finely driven large flake with fine edge use.
A-46935.020	Side scraper	Figure 12.4	Asymmetrical sidescraper, gray/green Normanskill chert. Unifacial flake knife/scrapers, made from a large bifacial thinning flake.
A-46935.021	Side scraper	Figure 12.4	Asymmetrical sidescraper, unifacial flake-greenish gray/tan Normanskill chert, heavily battered on left side and reverse—possibly used as a <i>piece esquillees</i> ? Fire-spalled on reverse.
A-46935.018	Blade	Figure 12.5	Side/end scraper, long triangular blade of mottled dark gray chert (slate color). A classic blade, triangular in cross section with slight edge use. Clear edge use on distal end and left side (if held in right hand).
A-46935.022	End scraper	Figure 12.5	Side/end scraper, fine, thin flake with delicate edge work on three sides. Gray/green Normanskill chert.
A-46935.036	End scraper	Figure 12.5	Side/end scraper, fragment, glossy black chert, distal end of a finely made and heavily used blade tool.
A-46934.007	End scraper	Figure 12.6	End scraper, mottled gray blue chert, Pennsylvania jasper.
A-46935.023	End scraper	Figure 12.7	End scraper, dark grey chert with brown cortex. Fort Ann chert?
A-46935.024	End scraper	Figure 12.7	End scraper, mottled gray with worm holes. Fort Ann chert?
A-46935.025	End scraper	Figure 12.7	End scraper, glossy black with broken cortex and worm holes. Fort Ann chert?
A-46935.026	End scraper	Figure 12.7	End scraper, light mottled gray/brown. Eastern Onondaga chert.
A-46935.027	End scraper	Figure 12.7	End scraper, dark gray chert with worm holes, note cleavage plane. Fort Ann chert?
A-46935.028	End scraper	Figure 12.7	End scraper, glossy dark gray chert with worm holes. Fort Ann chert?
A-46935.029	End scraper	Figure 12.7	End scraper, red "Indian River" chert. Heavily fire spalled obverse and reverse. Normanskill chert.
A-46935.030	End scraper	Figure 12.7	End scraper, dark gray glossy chert, heavily battered, possibly used as a <i>piece esquillees</i> ?
A-46935.031	End scraper	Figure 12.7	End scraper, dark gray/brown glossy chert, heavily battered, possibly used as a <i>piece esquillees</i> ?
A-46935.032	End sscraper	Figure 12.7	End scraper, mottled gray chert with fossil inclusions. Fort Ann chert.
A-46935.033	End scraper	Figure 12.7	End scraper, flat gray chert. Onondaga chert.
A-46935.034	End scraper	Figure 12.7	End scraper, mottled gray chert with fossil worm holes. Fort Ann chert.
A-46935.035	<i>Piece esquillees</i>	Figure 12.8	<i>Piece esquillees</i> , glossy black chert, ventral surface is a cleavage plane, end scraper reused as a <i>piece esquillees</i> ?
A-46935.037	<i>Piece esquillees</i>	Figure 12.8	<i>Piece esquillees</i> , glossy black chert, end scraper reused as a <i>piece esquillees</i> ?
A-46935.038	<i>Piece esquillees</i>	Figure 12.8	<i>Piece esquillees</i> , glossy black chert, ventral surface shattered off; end scraper reused as a <i>piece esquillees</i> ?
A-46935.039	<i>Piece esquillees</i>	Figure 12.8	<i>Piece esquillee</i> , glossy black chert, blade fragment possibly used as a <i>piece esquillees</i> ?
A-46935.040	<i>Piece esquillees</i>	Figure 12.8	<i>Piece esquillee</i> , glossy black chert, blade fragment possibly used as a <i>piece esquillees</i> ?



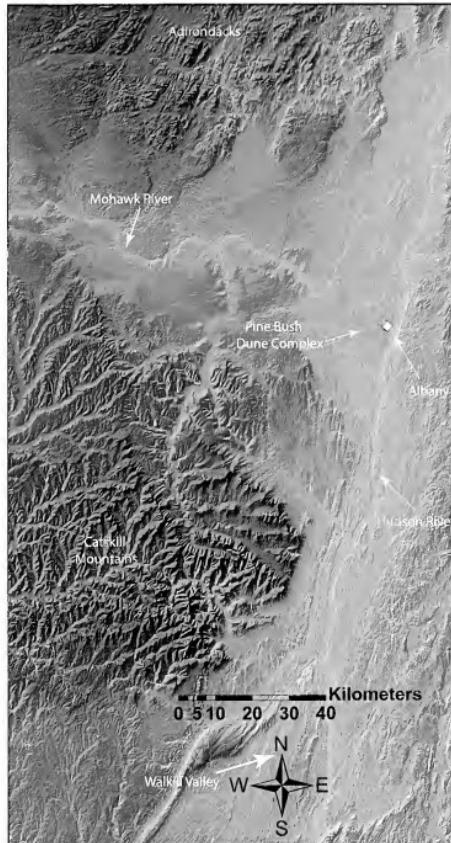
**12.8.** *Pieces esquillees* (NYSM A-46935.035, A-46935.037–040).

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them were found together. In addition, the material collected by Sundler is a selective sample. Like most other amateurs, he did not collect debitage, or “chips” as they were then called.

Even with these limitations, the Sundler Paleoindian assemblage is significant for a number of reasons. It has a remarkable degree of internal consistency. These are good Early Paleoindian artifacts in terms of form and lithic material preference, ones that could easily be duplicated in the assemblages from Bull Brook, Wapanucket, or other well-known sites in the New England-Maritime region (Bradley and Boudreau 2006; Byers 1954). The Sundler materials are also one of the few non-quarry-related “assemblages” from the mid-Hudson Valley. These artifacts had been transported some distance from where they were made, and they appear to represent a different set of activities than those that occurred at quarry-workshop sites. This is reinforced by the extensive wear evident on most of the specimens. Many of these pieces had been used and reused until they were no longer serviceable.<sup>3</sup> Several different cherts also appear to be represented in the assemblage. Most appear to be varieties of the Mount Merino (Normanskill) chert that outcrops in several locations in Greene, Columbia, Rensselaer, and Washington Counties (Funk 2004:133). Others appear to be made of Fort Ann chert from Washington County. There also may be examples of Onondaga chert. This diversity of lithics suggests that the Paleoindians who stayed on these sites were well acquainted with the region's lithic resources.

While the Sundler material is unique as the only large Paleoindian collection known from the Capital Region



**12.9.** Surficial map of the Capital Region.

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(Figure 12.9) that is not associated with a quarry or workshop, this does not mean that no other evidence for Paleoindians has been found. Several fluted points, similar in form to Sundler's, have been reported from elsewhere in the Capital Region. These include two examples from Schenectady County (Niskayuna and Glenville), several from Saratoga County (Crescent, Stillwater, and Wilton), at least one from Washington County (Jackson), one from Rensselaer County (Hoosick Falls), and one from Columbia County (Ghent). In addition, a number of other fluted points

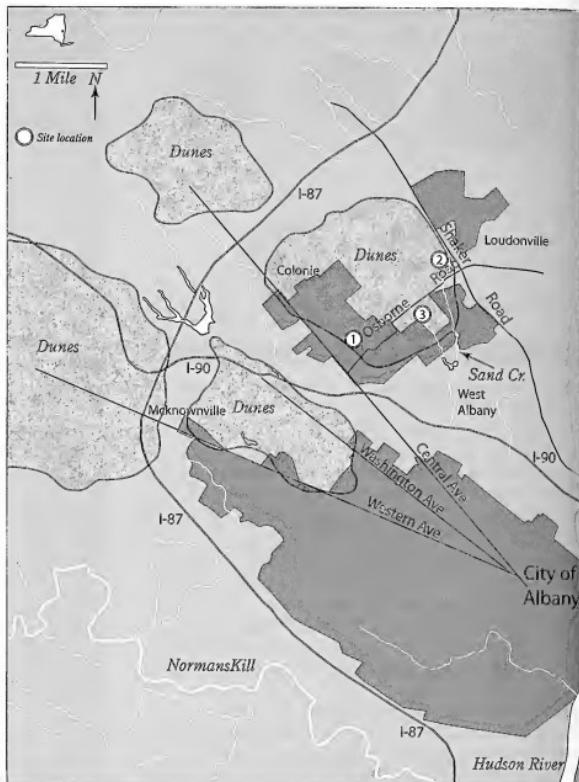
have been reported between Catskill and Coxsackie in Greene County.<sup>4</sup>

Finally, the location where Sundler found these artifacts—on the rolling terrain of the Pine Bush—tells us something new about the landscape in which these Paleoindians chose to live.

## SITE LOCATIONS

Determining where these artifacts were found proved to be a challenge. Sundler donated his collection to the New York State Museum in 1974, just a year before he died. A review of the accession records indicated that most of the artifacts came from "West Albany," a broad collecting area located between Sand Creek and Shaker Roads. Ritchie's 1957 publication provided some locational details, while conversations with the late Beth Wellman and Charlie Gillette helped to resolve other issues. Still, it was not possible to determine exact provenience for much of this assemblage. Perhaps this is the reason why neither Ritchie nor Robert Funk (Ritchie's successor as State Archaeologist) chose to work with Sundler's collection further.

In spite of the problems, we were able to identify fairly precise locations for three sets of artifacts. One is the fluted point. Ritchie (1957:86-87) reported that it was found along a "sand ridge on the Harold Smith farm, Shaker Road, West Albany." However, this location (NYSM Site No. 332) differs from the accession records, which indicated this artifact was found north of Osborne Road between Sand Creek Road and Shaker Road. It seemed impossible to reconcile these accounts until a conversation with Walter Igler, a farmer who has lived on Osborne Road since the late 1920s, indicated that there had been another Smith farm on Sand Creek Road. This location fit better with Charlie Gillette's recollection of visiting the spot where the point was found with Sundler—the end of Pfiel Avenue off Sand Creek Road (Figure 12.10, No. 1). The three red jasper unifaces are the second set of artifacts for which locational information was available. Ritchie reported all three found "within a small blowout on a sand ridge along a



12.10. Map of West Albany showing Sundler site locations No. 1, No. 2, and No. 3.

brook comprising a south feeder of Sand Creek, about 3.5 miles west of the Hudson River" (1957:Pl. 11). He also noted that the fluted point had been found "about three-quarters of a mile northeast." We believe that this location was near the intersection of Osborne Road and Shaker Road (NYSM Site No. 333) (Figure 12.10, No. 2). The only artifact to have a more specific provenience is a chert endscraper (NYSM A-46934.007) that was found south of Osborne Road (NYSM Site No. 6571) (Figure 12.10, No. 3). Unfortunately, the rest of the artifacts can only be assigned to Sundler's general "West Albany" collecting locality. As a result, we now refer to these as the Sundler sites, rather than a specific site.<sup>5</sup>

## LOOKING AT THE LANDSCAPE

The Sundler sites are located near the eastern end of a large sand plain known locally as the Pine Bush. Roughly 125 km<sup>2</sup> (77.7 mi<sup>2</sup>) in extent, this sand plain lies south of the Mohawk River and west of the Hudson. It is characterized by light but fertile soils and a slightly rolling, upland topography that serves as the headwaters for numerous small drainages. While this area was used extensively for market gardening since the mid-nineteenth century, much of it has been altered or destroyed by commercial and residential development since 1950 (Figure 12.11).

As a landform, the Pine Bush originated as delta deposited into Glacial Lake Albany by the ancestral Mohawk River between 18.2 and 15.2 kyr B.P. (Figure 12.12; Connally and Sirkin 1986; Dineen 1986). It began to take on its present-day appearance after Lake Albany drained between 13.4 and 13.1 kyr B.P. (Donnelly et al. 2005; Rayburn et al. 2005). With this change in water level, what had been an underwater delta became a flat, sandy plain situated well above the level of the adjacent Hudson River. Once exposed, wind and water quickly began to erode these unconsolidated deposits.

Wind appears to have been a particularly important factor. Several studies have remarked on the area's

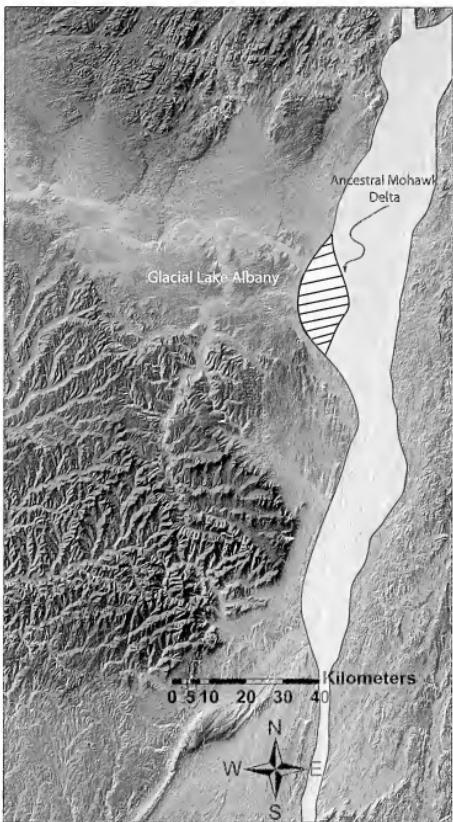
dune fields that were probably formed at this time. These include short, broad ridge-shaped dunes, usually between 10 and 20 m (33 and 66 ft) high and often several hundred meters long, as well as parabolic, or crescent-shaped, dunes (Figure 12.13). These dunes are what give the Pine Bush its rolling topography. Initial analysis of several dunes indicated that they may have formed quickly and not moved far from their place of origin (Donahue 1974:12–14). The parabolic shape suggests that vegetation probably helped to anchor the dune surfaces and prevent substantial reworking. Donahue (1974:15) concluded that these dunes were produced primarily by the strong, consistent westerly and northwesterly winds that funneled down the Mohawk Valley at the end of the Pleistocene.

We concur with Donahue's conclusion that these dunes are of late Pleistocene origin. When Glacial Lake Albany drained sometime after 13.4 kyr B.P. and exposed these sediments, the Laurentide Ice Sheet (LIS) was not far away, probably no farther than 250 km (155 mi). However, as the ice retreated, it also decreased in height and became less of a factor in regional weather. By this time, insolation (solar radiation) increase during the summers would have significantly warmed areas south and west of the ice sheet while regions to the east and downwind would have remained cool and



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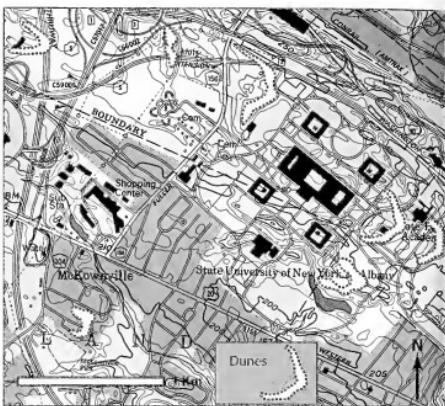
12.11. View of the Pine Bush, facing east, in 1942.  
Taken by Walter Igler from his farm on Osborne Road (see No. 3 on Figure 12.10).



12.12. Map of Glacial Lake Albany, about 13.4 kyr B.P.

moist. These conditions would have been favorable to re-establishment of the jet stream south of the LIS and the prevailing westerly winds that created the Pine Bush dunes.

Moisture levels may also have been a significant factor. Donahue (1974:15–17) suggested that the dune formation implied comparatively drier conditions. The combination of sandy soil and dry conditions may have slowed the ability of plants to colonize these sediments and encouraged dune formation. Vegetation was probably slowed even further by the return to colder climatic conditions with the onset of the



12.13. Ridge-shaped and parabolic dunes in the Pine Bush (on Albany 7.5 minute quadrangle USGS base map).

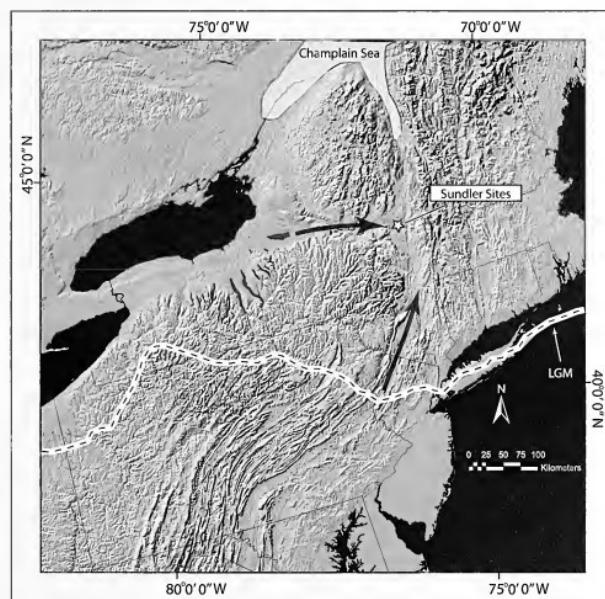
Younger Dryas chronozone (YDC) around 12.9 kyr B.P. (Newby et al. 2005). The importance of moisture is underscored by recent analysis of regional water levels. This indicates that the early portion of the YDC was not only colder, it was also substantially drier.<sup>6</sup> As the ice sheet continued to retreat, and weather patterns assumed a more Holocene character, the conditions that created these dunes disappeared as well. While much remains to be learned about these dunes and how they were formed, we agree with Donahue that the dune topography of the Pine Bush is of late Pleistocene, not Holocene, origin. Additional fieldwork on these dunes, their structure, and age is currently underway.

## CONCLUSIONS

How did people fit into this rapidly changing environment and where do the Sundler sites belong in that story? Four brief chronological<sup>7</sup> snapshots provide initial answers to these questions.

1. At 13.4 kyr B.P., the region continued to have a late glacial environment. Although the Laurentide Ice Sheet had retreated to the northern edge of what is now New York State, it continued to dominate the landscape. Large proglacial lakes filled the Ontario basin as well as the Champlain and Hudson Valleys, effectively blocking movement into the region. This was still an Ice Age landscape, one with a large and diverse faunal community

- including mammoth, mastodon, and caribou but no evidence of a human presence.
2. By 13.1 kyr B.P., several things had changed (Cronin et al. 2008; Newby and Bradley 2007). As the ice sheet had retreated further north, the St. Lawrence lowlands were inundated by rapidly rising sea levels. The result was the Champlain Sea, an arm of the Atlantic Ocean that extended as far west as present-day Ottawa and as far south as Lake George. Unlike the biologically sparse glacial lakes, the Champlain Sea was home to an incredibly rich and diverse array of species. These include several kinds of whales and seals as well as finfish, shellfish, and birds (Gadd 1988). There were also significant changes on the land. By 13.1 kyr B.P., Glacial Lake Albany had drained, and its beach lines and terraces provided natural routes across the landscape. Terrestrial mammals, especially mastodon and beaver, also remained plentiful in the region (Moeller 1984; Robinson et al. 2005). In spite of these resources, there still is no evidence for a human presence.
  3. Around 12.9 kyr B.P., there was an abrupt return to colder and drier climatic conditions. Known as the Younger Dryas chronozone, this change resulted in major shifts in regional vegetation (Newby et al. 2005). Perhaps as a consequence, this is also the time when the majority of large Pleistocene mammals disappear from the region (Barnosky et al 2004; Robert Feranec, personal communication 2008). This is also when humans appear to have entered the region.<sup>3</sup> While it remains unclear exactly by what route the first humans reached the Capital Region, two corridors seem most likely. One was from the west, following both the Onondaga Escarpment and recently exposed shorelines of Glacial Lake Iroquois to the Mohawk River Valley. The second was from the southwest, beginning in the Great Valley and continuing up the Delaware River Valley to the Wallkill corridor and on into the mid-Hudson Valley. The Pine Bush lies at the intersection of these two corridors (Figure 12.14).
- There is much we do not know about this period, for example, when exactly did the first Paleoindians arrive? While sites such as Twin Fields in Orange County, and Kings Road and Swale in Greene County, appear to be from this period, none have been radiocarbon dated. Why did Paleoindians come into the Capital Region and then spread farther north and east? Were they pushed by environmental changes in the Great Lakes and Midwest or pulled by the rich resources of the Hudson-Champlain Valley and Champlain Sea? These questions remain unanswered at present.
4. By 12.6 kyr B.P., however, humans appear to have become well established in the region. Based on similarities in artifact form and lithic source preferences, the Sundler sites probably date from this time period, as does the well-known West Athens Hill site in Greene County. Similar sites occur



**12.14.** Map of Late Glacial Maximum (LGM) terminal moraine, about 12.6 kyr B.P., showing Champlain Sea, corridors into the region, and the Sundler sites.

further east in the New England-Maritime region, including the Bull Brook and Wapanucket No. 8 sites in Massachusetts, the Dam, Hedden and Spiller sites in Maine, and the Port Mobil site on Staten Island. (Bradley et al. 2008)

It is easy to overlook the potential of a surface collection like Sundler's. However, when examined in detail, the collection turns out to be of real significance, directing our attention to a key piece of the Paleoindian puzzle that has been, literally, right beneath our feet. By refocusing our attention on the Pine Bush and the rapid environmental changes at the end of the Pleistocene, Sundler's sites add an important piece to our understanding of New York's first human inhabitants.

## ACKNOWLEDGMENTS

Our thanks to all the friends and colleagues who provided information, comments, and corrections as we pieced together the Sundler story. In particular, we are pleased to acknowledge the assistance of Dick Boisvert, Jeff Boudreau, Ed Curtin, Jeff Donnelly, Penny Drooker, Robert Feranec, Ted Filli, John Hart, Wayne Lenig, Jon Lothrop, Paige Newby, Stephen Pollock, and Tom Weinman as well as anonymous reviews.

## ENDNOTES

1. For more information on core and blade technology, see Morrow (1996:225) and Collins (2002). Both prismatic blades and blade-like flakes occur on fluted point sites in the New England-Maritime region. This does not imply that these sites have any direct Clovis affiliation. Like fluting itself, the making of blades was a Clovis-derived technology that was adapted and modified by subsequent Paleoindian cultures in the Northeast.
2. For more information on the use-life of end scrapers, see Morrow (1996:408, Figure 65).
3. See Morrow (1996:420, Figure 77) for a reconstruction of a Paleoindian lithic procurement cycle. The Sundler materials appear to be halfway through such a cycle of use and discard.
4. For Schenectady County, the fluted point from Niskayuna was found by William Naylon in the 1930s and is in the Mohawk-Caughnawaga Museum. The Glenville (Wurz's Flats) point was found by Joel Swart and is in the New York State Museum (A-A2002.36AR.004.007). Several fluted points have been found in Saratoga County (Funk and Walsh 1988; Levine 1989; Ritchie 1957:86–87). For Washington County, one fluted point has been found in Jackson along the Battenkill (Ashton 1994) and another is reported from near Fort Ann (Tom Weinman, personal communication 2008). For Rensselaer County, a fluted point base, very similar in style to the one found by Sundler, was found near Hoosick Falls and is in the New York State Museum (A-A2001.11.1.1). Several fluted points have been found in Columbia County; the Old Post Road point from Ghent is very similar to Sundler's point (Ted Filli, personal communication 2006).

5. While the Sundler collection is the focus of this chapter, other collectors have reported similar Paleoindian material from the "West Albany" area. These include artifacts in the collection of the late Jim Zell, a friend of Sundler who often went surface hunting with him. The late Harold Schneidmuller also reported finding a fluted point of "black chert" near his house when he was young. His family lived on Knauf Lane off Shaker Road.

6. Special thanks to Paige Newby, Department of Geological Sciences, Brown University, for her comments on the changes in moisture levels during the YDC and the effect of glacial retreat on the jet stream.
7. Dates cited are based on calibrated radiocarbon dates (cal yr B.P. or ky) from published literature, not newly reported dates. Please see the cited literature for details on calibration data sets and programs.
8. This hypothesis is based on a re-assessment of the physical changes to the landscape, especially major drainage events, and the distribution of dated archaeological sites. Most relevant is the Shawnee-Minisink site location in the upper Delaware River Valley in Pennsylvania that has produced at least six ca. 12.9 kyr dates on feature charcoal and associated organics (hawthorne seeds) (Gingerich 2007:121, Table 2). Shawnee-Minisink is located less than 100 km (62 mi) from the New York state border along a major corridor to the mid-Hudson River Valley. Technologically, Shawnee-Minisink is very similar to several (undated) sites along this corridor. These include the Twin Fields sites in Orange County and the Kings Road/Swale sites in Greene County.

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## CONNECTICUT YANKEES ON THE NEW YORK FRONTIER: The Archaeological and Historical Records of the Olmsted Site

Kevin Moody and Adam Luscier

The 1763 Treaty of Paris formally ended the Colonial Wars and gave Britain virtual hegemony over North America. However, migration to New York's northern and western frontiers actually began four years earlier following British victories over the French at Fort St. Frederick at Crown Point, Fort Carillon at Ticonderoga, and Fort Niagara on Lake Ontario in 1759. With the threat of a French attack eliminated, New York's frontiers were opened to settlement for the first time in more than a century. As a result, New York experienced what has been described as "The Yankee Invasion," where land-hungry settlers from the New England colonies flooded across the borders seeking cheap, available land along New York's extensive frontiers (Hackett 1991:85).

Among the first of these "Yankee Invaders" were 100 members of the Congregationalist Church of Canaan, Connecticut, whose coordinated migration from Canaan to Stillwater, New York, began in 1762 and lasted into the 1780s (Sylvester 1878:289). Surveyor John Hunter and millwright David Bidwell were in the vanguard of these Connecticut pioneers to arrive in Stillwater, where members of their congregation purchased, surveyed, and subdivided large tracts of land in Lots 3, 4, 5, and 6 of the 1684 Saratoga Patent.

According to John's descendants, the Hunter family settled near Round Lake along the western edge of the Saratoga Patent upon arriving from Connecticut in 1764. The original family homestead was located in Lot 3 of the Saratoga Patent, on what became the Scotland Place in the nineteenth century (Sylvester 1878:382). The Hunter family, among others, eventually settled the fertile ground that flanked the east and west sides of a stream immediately north of Round Lake. This stream powered several early mills and became the scene of a mid-eighteenth-century settlement known as Maltaville.

A few miles northwest of Maltaville, the intersection between Dunning Street (NY Route 67) and US Route 9 was the site of a second eighteenth-century settlement known as Dunning Street Corners (also known as the Malta Post Office) (Sylvester 1878:280). The Olmsted archaeological site (SBE 2) was the cultural material

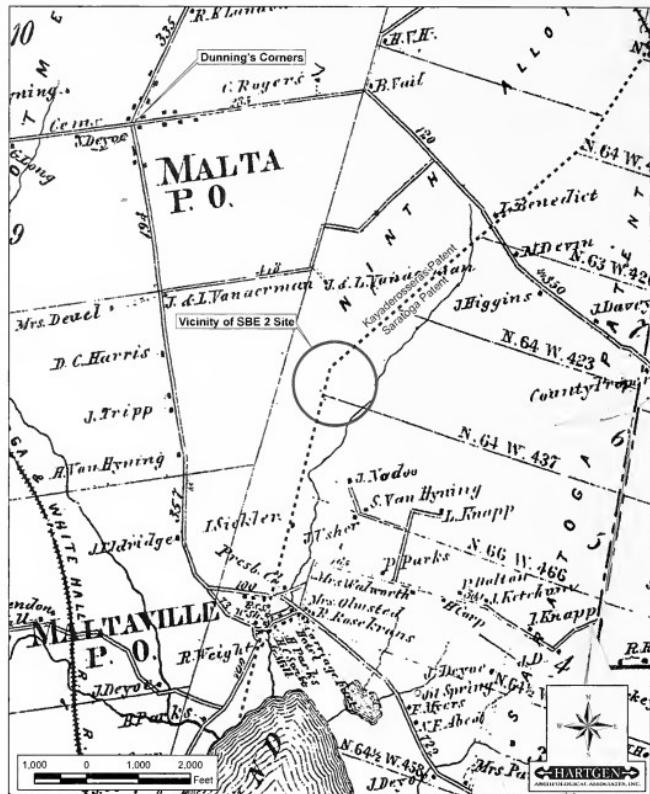
remains of three pioneer cabins that were located at a midpoint between these two early settlements. Early unimproved roads likely existed between Maltaville and Dunning's Corners and one may have passed just north the cabins (Figure 13.1).

### REPUTED LANDOWNERS

Evidence discovered during deed research indicates that John Hunter was a successful land speculator as well as a surveyor. In several of the late-eighteenth- and early-nineteenth- century conveyances transcribed for this report, John Hunter is listed as the grantor of lands in Lots 3, 4 and 5 of the Saratoga Patent (Saratoga County Clerk (SCC) 1792–1860: Grantor Index). Shortly after his arrival in Stillwater, Hunter purchased all of Great Lot 5, which extended six miles west from the Hudson River to a point just north of Round Lake (Sylvester 1878:289).

Details from an eighteenth-century survey map of Lot 5, observed and recounted by Sylvester in 1878, establish that Hunter subdivided Lot 5 into 13 parcels, 12 of which were sold before his death in 1805 (Sylvester 1878:289). More recent research indicates the initial subdivision was completed by 1792, when David Bidwell sold the westerly most parcel of Lot 5 to Lemuel Olmsted (Saratoga County Clerk (SCC) 1821:390). The Olmsted parcel covered approximately 73 acres (Figure 13.2).

Between 2002 and 2006, archeologists from Hartgen Archeological Associates, Inc. (HAA) discovered evidence of three habitation sites (the footprints of two cabins and the sheet refuse associated with a third) located 1,500 ft upstream from an extensive earthen dam and the well preserved foundation of Malta's first woollen factory. The mill complex was identified and depicted in several contemporary deeds and depicted on a historic 1829 map. The cabin sites were never identified, described, or depicted in any of the sources consulted. This was probably because they were located on the disputed boundary of the Saratoga and Kayaderosseras



**Figure 13.1.** 1856 Gell Map of Saratoga County, New York, depicting the reputed boundary between the Kayaderosseras and Saratoga Patents and the locations of the SBE 2 site, Dunning's Corners (Malta Post Office), and Maltaville.

Patents that remained in dispute into the 19th century. However, the best available evidence indicates that the cabin sites were located in the northwest corner of Lot 5 of the Saratoga Patent. It is on this premise that the following interpretation is based.

Data from the first federal census establish that Lemuel and Silence Olmsted and their three young sons were living in the Town of Stillwater near Maltaville in 1790 (United States Bureau of Census 1790:51). The order in which the census was taken suggests the Olmsted family was living on Lot 5 of the Saratoga Patent, perhaps renting the Bidwell parcel before pur-

chasing it in 1792. It is likely the Olmsteds built cabins on the Bidwell parcel in the early 1790s, where four of their seven children may have been born—John, in 1792; Lois, in 1797; James, in 1798; and Polly, in 1800 (Durkee 1877: Entrées #143 and 146) (Figure 13.3).

The cabins were located on a flat area probably in the northwest corner of the parcel, where a small stream flowed into the Olmsted property. The earliest cabin may have been constructed during a time that Lemuel rented and farmed the land prior to purchasing it. Although it is unclear from the archaeological evidence when it occurred, the original cabin burned at some



**Figure 13.2.** 2004 Ortho image depicting the approximate location of the parcel that was purchased by Lemuel Olmsted in 1792. This parcel was the westerly most part of Lot 5 of the Saratoga Patent.  
NYS Office of Cyber Security and Critical Infrastructure. Saratoga County 1-Foot Resolution Natural Color Orthoimagery.

point. It is likely a second cabin and perhaps a third were constructed shortly thereafter. From the time Lemuel Olmsted purchased the Lot 5 parcel in 1792 until his untimely death in 1805, he built cabins to shelter his family, established a farm, and may have constructed a mill to support them.

It is unclear from the historical records exactly who established the mill discovered 450 m (1,500 ft) downstream from the cabins at the Olmsted site. However, that said, it was located near the center of the Olmsted parcel, where a second stream converged with the stream that passed by the cabins. Between the two

streams was a well-drained triangular terrace. The broader northern section of the terrace was cleared as farmland. The narrower southern portion of the terrace at the convergence of the two streams created a constriction in the landform, which facilitated the construction of a dam and the creation of a millpond. The physical evidence of the dam and mill identified in the field and its position at the center of the Olmsted parcel suggests that Lemuel Olmsted constructed one of Malta's earliest mill complexes (Durkee 1877: Entry No. 144) (Figure 13.3).

When Lemuel died at the age of 44, his plans for his



**Figure 13.3.** 2004 Ortho image depicting the locations of Cabin 1, Cabin 2, and Cabin 3 of the SBE 2 site and the historic mill complex. These historic features were located respectively in the northwest corner and near the center of the 1792 Olmsted parcel shown in Figure 13.2.

NYS Office of Cyber Security and Critical Infrastructure. Saratoga County 1-Foot Resolution Natural Color Orthoimagery.

family's security were in jeopardy. He left no will, leaving his wife and four minor children to fend for themselves while the courts settled his estate. Fortunately, Lemuel's eldest son, 22-year-old Zalmon, was a successful blacksmith in Maltaville center by 1805. Zalmon and his brother, 20-year-old Coleman, likely shared the responsibility of raising their four minor siblings with their widowed mother while the courts decided the dispensation of Lemuel's estate.

As mentioned above, it is unclear who actually constructed the mill. However, the earliest deed documenting its ownership seems to coincide with the upheaval

of the Olmsted estate. An 1813 deed describes the purchase of the 2-acre mill seat by Lewis Waterbury from Frederick Y. and Sophia Waterman and Larry and Polly Bennett of the Town of Malta (SCC Deed Liber F, Page 126). Its unknown how and when the Watermans and Bennetts came to own the mill seat. This transition would have occurred shortly after Lemuel's death in 1805. Zalmon, who had established a lucrative blacksmithing business at Maltaville center, may have opted to divest himself of the mill seat shortly after his father's estate was settled, but he retained the surrounding farmland. In 1825, Waterbury purchased the remaining

farmland from the Olmsteds.

There is no reference to heirs of Lemuel Olmsted in the 1810 federal census records, but the 1820 census contains a plethora of information about the family. This information suggests that Zalmon trained two of his brothers in the art of blacksmithing. In 1820, Zalmon's household had 13 members, including three adult males who identified themselves as manufacturers—Zalmon, and (probably) his brothers Joshua and John, since neither is listed as a head of household elsewhere in the census.

Coleman took over the family farm following their father's death. Evidence contained in the 1820 census indicates that Coleman's household had eight members and probably included his brother James. Unlike their brothers, Coleman and James always identified themselves as farmers and never identified themselves as manufacturers.

By the time the federal census was taken in the summer of 1820, Coleman was acknowledged as the *de facto* head of the Olmsted household, apparently with the acquiescence of his siblings (including his older brother Zalmon) as well as of his mother. Perhaps it was because he was the oldest of the Olmsted children still living on the family homestead. It is theorized that the Olmsteds abandoned their rustic cabins above the millpond for better accommodations in Maltaville.

The 1840 federal census supports this contention. John Olmsted, then 46 years of age, may have been born in one of the rustic cabins. He was listed as both a head of household and a manufacturer in 1840. By comparing the composition of John Olmsted's household in 1840 with his widow Sarah's household in 1850, it would appear that the decade between 1835 and 1845 was tumultuous for the family in most respects. After marrying rather late in life, John and his wife Sarah had four children between 1830 and 1840, when he was in his forties and she was in her thirties. This would not seem remarkable, except that it was accomplished while they were constructing Maltaville's largest and most famous landmark, a large cobblestone residence (Figure 13.4).

By 1840, John and Sarah were maintaining a household of 12—which included their own four children, two farmhands with four children, and their factory manager (Federal Census 1840). Under these circumstances, it would seem that their mansion was not a luxury but a necessity. When John died unexpectedly in 1845 at the age 53, Sarah was forced to sell their woolen factory to their former mill manager, Norman Strong, who continued to operate the business successfully for another decade (United States Industrial Census 1850). Sarah converted their home to a boardinghouse, which she ran for nearly half a century as her main source of income (Lent and Silvernail 1890:134).



**Figure 13.4.** View of the historic Olmsted cobblestone house located at the corner of Knapp Road and NY Route 67 in Maltaville. Today, the Olmsted house is operated as a bed and breakfast.

### THREE OLMSTED PIONEER CABINS: THE ARCHAEOLOGICAL RECORD

The archaeological record of the Olmsted site is the buried remains of three pioneer cabins and the cultural materials associated with their occupation. Discovery of the Olmsted site and mill complex revealed that the stream extending through Maltaville had a story that could reveal many details beyond what had been written in historical documents. The cabins occupied farmlands beside the stream at the same time as an earthen dam impounded water for the woolen mill 1,500 ft below them. An unimproved road likely passed the woolen mill and crossed the farmlands between Maltaville and Dunning's Corners. This creates a picture of uninhabited forest that was once thriving during the late eighteenth century. In 1792, the Olmsteds purchased the western part of Great Lot 5 and grew to become one of the more prominent families within the area.

The archaeological field work began with a 5-m (16.4-ft) grid of shovel tests centered on the test pit that initially discovered the Olmsted site. The test grid recovered only a few small fragments of ceramics; however, one piece was delicately hand-painted pearlware (Figure 13.5). The motif was very similar to examples discovered at other early historical sites in the Malta area as well as to an extensive deposit of pearlware discovered among the archaeological remains of Fonday's Warehouse that burned in the infamous 1795 fire in Albany, New York (HAA 2002). This was a key artifact that prompted more testing.

Tests were placed every 2.5 m (8.2 ft), between the 5-m tests. This produced an abundance of artifacts and

data that was useful for the placement of larger excavation units. Also, this demonstrated that the deposit was discrete. The units identified a historical plowzone; however, the second unit encountered an ash feature below it. The unit was expanded to expose the full extent of the feature. Its excavation revealed a profusion of freshwater clamshells, faunal bone, a broken set of green shell-edged pearlware plates (Figure 13.6), and many other artifacts. A section of a stove pipe was found crushed flat at the bottom of the deposit. The same units discovered an organic stratum that was rich with artifacts below the plowzone and immediately west of the ash deposit. The profile of the ash and organic stratum told the story. It is likely that organic stratum was the dirt floor in the interior of a structure and the ash was a midden near the edge of the structure (Figure 13.6). With this discovery it was clear that the site was well preserved and a significant resource.

The midden and living floor were identified at the northeastern corner of the landform near an unimproved road that crossed the stream and continued north of the site. The likelihood that additional evidence of historical occupation covered the rest of landform was considered very high. Consequently, the grid was expanded and used to excavate subsurface tests every 5 m and to conduct a metal detector survey of the entire area. A second area of occupation was identified 19.8 m (65 ft) from the first cabin discovered. Archaeologists excavated 666 m (2,185 sq ft) of the site among units and stripped areas, which identified the archaeological remains of three pioneer cabins (Figure 13.7).

## CABIN 1

Fifteen units were used to excavate the plowzone and expose the entire living floor of Cabin 1. The preservation of this feature was excellent. It contained dark brown organic soil with artifacts protruding from its surface that was highlighted by natural yellow sand on all four sides. The 10-by-15-ft living floor contained artifacts in primary context (Figure 13.8). Careful excavation and mapping revealed spatial use patterns related to daily activities and habits that were carried on inside this structure. These patterns were key data for reconstructing the interior space and understanding how the cabin was used.

The living floor was gridded and excavated by 50-by-50-cm units. The number and types of artifacts from each unit were entered into an ArcGIS program to create spatial models. The models revealed four distinctive patterns associated with the distributions of ceramics, smoking pipes, architectural remains (mostly brick),



Figure 13.5. Small pieces of pearlware that prompted the excavation of more tests at the SBE 2 site.



Figure 13.6. Close-up of a midden discovered in the corner of the first cabin.

and food remains across the living floor (Figure 13.9).

As mentioned above, the architectural materials were mostly brick and much smaller amounts of window glass and nails. The highest concentration of brick occurred along the center of the east wall, which was indicative of the chimney and stove location. The distributions of all the artifacts radiate from this point and create a V-shaped pattern across the floor. The stove was the heat source during the coldest seasons and was used to prepare and consume food, which likely occurred every day (Figure 13.10).

Faunal remains occurred in three areas of the cabin living floor (Figure 13.11). In all, 80 clam shells and 208 faunal bone fragments were recovered. Most of this material was found in a midden along the north wall and around the location of the stove at the middle of the east wall. The midden contained calcined (burned) bone

## Site Map

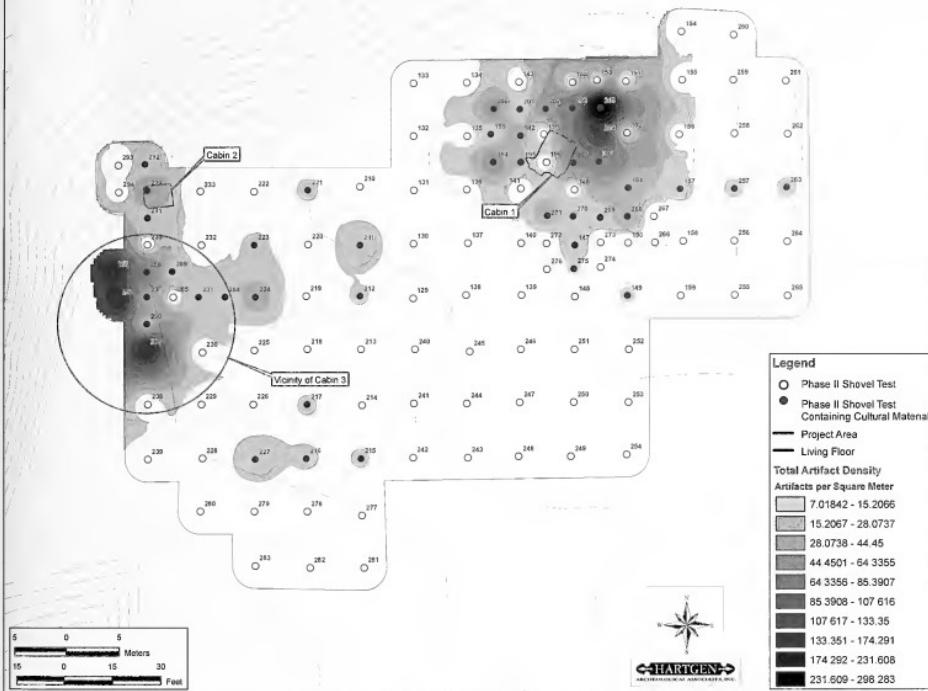


Figure 13.7. Site map showing the Phase II and III excavations, density model, and locations of Cabin 1, Cabin 2, and Cabin 3.

and high frequencies of processing waste in the form of cranial, mandibular, and foot elements. Identified species included domesticated chicken, cattle, pig, sheep, and goat. Meat consumption relied heavily on farm animals. This supported the historical record that these cabins were part of a farmstead, perhaps the early Olmsted farm that surrounded the mill complex.

The third concentration of faunal material was small and occurred near a triangular feature believed to have been the entrance at the southwest corner of the cabin (Figure 13.11). Fragments of pearlware, lead-glazed redware, and tobacco pipes were discovered scattered across the living floor between the cabin entrance and the stove (Figure 13.12). The pattern of broken pearlware and redware vessels likely developed as food was

taken from the stove and out the door. The cook may have smoked while this was done. The fragments of smoking pipes, ceramics, and faunal bone clustered at the entrance suggest this part of the cabin was used as a social space. The cook and others from time to time likely relaxed and socialized near the cabin entrance. It is unknown how many windows there were, but this suggests the entrance was used for light or ventilation.

In summary, the distributions of cultural materials and faunal remains across the Cabin 1 living floor are principally associated with food preparation and consumption. This likely occurred repeatedly, two to three times a day, and is the reason this pattern appeared prominently in the archeological record. Food was cooked on the stove at the middle of the east wall. Butcher waste, stove



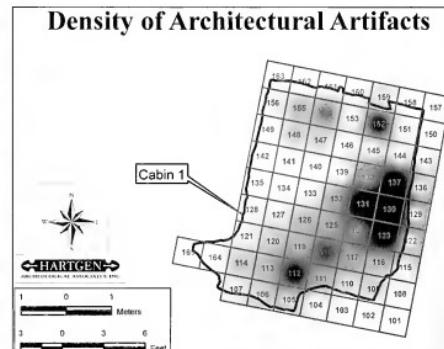
**Figure 13.8.** View of Cabin 1 living floor after full exposure. The intrusive excavation in the bottom left corner is the unit that originally discovered the living floor.



**Figure 13.9.** Excavation of the Cabin 1 living floor in  $0.50 \times 0.50$  cm units.

cleanout, and other refuse were deposited along the north wall. Limited food consumption, smoking, and other leisure activities occurred near the entrance.

It is unknown how many individuals lived at the site at one time. Lemuel Olmsted and his family accounted for eight individuals, which included four young chil-



**Figure 13.10.** Density of architectural artifacts (mostly fragments of brick) across the Cabin 1 living floor.

dren. The interior of Cabin 1 covered about 150 sq ft, which would have been a confined space for a family.

Based on the archaeological evidence, it is theorized that Cabin 1 functioned as a cookhouse used for preparing meals. Food consumption by the family and/or a group of individuals likely occurred outdoors in an area

## Density of Faunal Remains

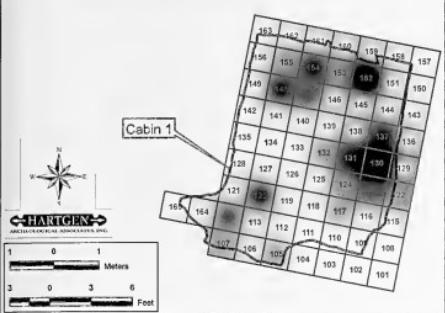


Figure 13.11. Density of faunal remains across the Cabin 1 living floor.

4.6 m (15 ft) north of the cabin where several pewter spoons were discovered (Figure 13.13). This was the only area where utensils were discovered at Cabin 1. The outside eating area was most likely used during warm seasons. A  $0.9 \times 0.9$  m ( $3 \times 3$  ft) vault feature believed to have been the privy was discovered 10.7 m (35 ft) north of the cabin and eating area (Figure 13.14). This area of the site appears to have functioned for utility. By today's standards it would seem unsanitary to have the cookhouse and privy so close together. However, it is unlikely that this was true during the late eighteenth century. In a rustic setting such as the Olmsted site, the refuse generated by cooking and eating likely attracted bugs, varmints, and other animals. It is also likely that the privy was a nuisance from time to time. Out of convenience, all of these activities may have been purposefully located in one area of the site, especially if a family was present.

## Density of Ceramic Artifacts

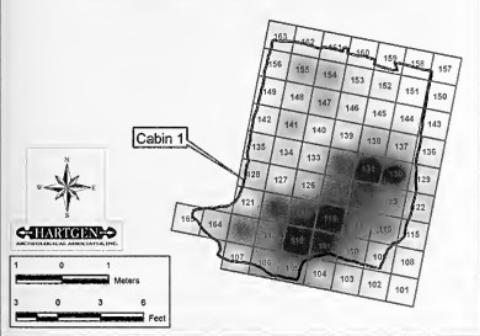


Figure 13.12. Densities of ceramics and tobacco pipes across the Cabin 1 living floor.



## Density of Tobacco Pipes

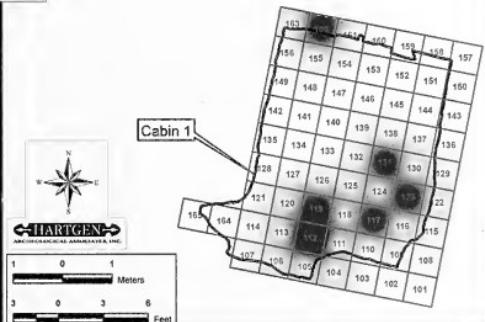




Figure 13.13. Pewter spoons recovered north of Cabin 1.



Figure 13.14. Privy vault feature discovered north of Cabin 1.

## CABIN 2

There were very few cultural materials contained in the soil surrounding the location of Cabin 2, and if a test that encountered a dark stain below the plowzone had not been conducted, it might never have been found. Subsequently, the plowzone was stripped with a backhoe to expose the feature, which was defined as a 2.4 x 2.7 m (8 x 9 ft) organic stain. Excavation found that it was not a living floor such as at Cabin 1, but rather a shallow root cellar that likely had a wood plank floor above it. Excavation discovered burned timbers slumped in the base of the cellar, evidence that the superstructure burned (Figure 13.15). Only 56 artifacts were recovered from this feature. Although the artifact assemblage was small, it was distinctive compared to the rest of the site.

The royal and dot patterned creamwares and a ribbed flask fragment that were discovered within the root cellar were unlike any artifacts recovered from Cabin 1 and Cabin 3. The flask fragment resembled pitkin flasks that were manufactured in Connecticut during the 1780s and 1790s (Manchester Historical Society). The flask was one of only a few glass vessel fragments that were recovered from the site. In addition, creamware was the most abundant ceramic type recovered from Cabin 2 (Figure 13.16). As a whole, the assemblage from Cabin 2 suggests that the structure was slightly earlier than Cabin 1 and Cabin 3. Furthermore, the small assemblage suggests that the cabin was occupied for a short period of time, which left a discrete archaeological signature. It is likely that this was one of the earliest structures constructed at the Olmsted site—perhaps by



Figure 13.15. Burned floor boards discovered at the bottom of the root cellar of Cabin 2.

Lemuel Olmsted at the time he rented the most westerly part of Lot 5 from David Bidwell and before he purchased the land in 1792.

## CABIN 3

Evidence of Cabin 3 was discovered along the western edge of the landform slightly southwest of Cabin 2. An area 19.8 m (65 ft) wide void of artifacts separated the location of this cabin from Cabin 1. The types of ceramics and architectural remains, and the sheer amount of cultural material, recovered from Cabin 3 were similar to what was found at Cabin 1.



Figure 13.16. Fragments of creamwares and a possible pitkin flask recovered from Cabin 2.

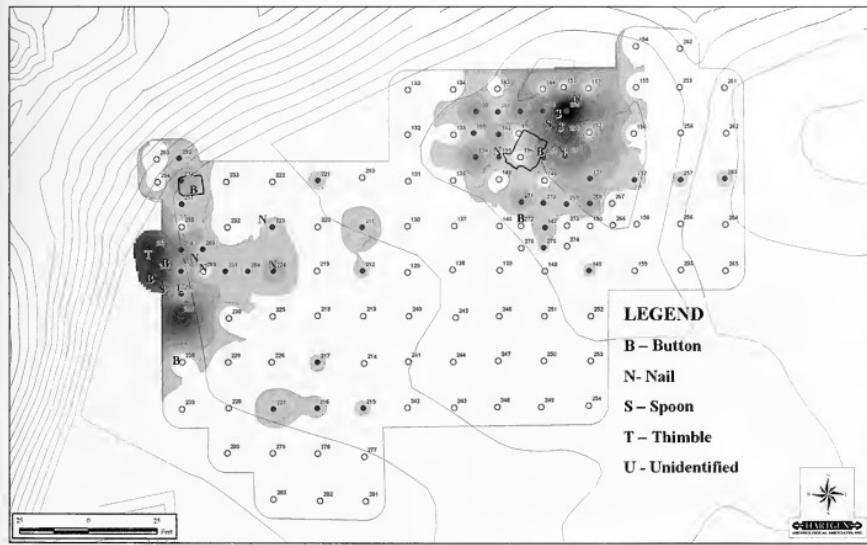


Figure 13.17. Site map showing the density model and the locations of metal artifacts recovered around Cabin 1 and Cabin 3.

The assemblage from Cabin 3 included fragments of glazed-redwares, pearlwares, creamwares, cut nails, brick, and window glass. Specifically, the types of pearlwares and creamwares and the percentages of each were very similar at Cabin 1 and Cabin 3. The absence of whiteware from the site suggests that everything was abandoned before whiteware became popular during the 1820s and 1830s (Miller 1991). It is probable that Cabin 1 and Cabin 3 were constructed after Cabin 2 burned, and were occupied until the 1820s.

Despite extensive efforts made during the excavation of Cabin 3, no subsurface archaeological evidence of a living floor or root cellar was discovered. The average depth of the plowzone was deeper across this part of the landform, which may have compromised subsurface evidence of such a feature. However, the hundreds of brick fragments, window glass, and particularly the cut nails were evidence that a third structure existed. Very few nails (128) were discovered overall, but they occurred in two specific areas of the site. The first was in the immediate vicinity of Cabin 1 and the second was within the artifact concentration that defined Cabin 3 (Figure 13.17).

The material remains from Cabin 3 have all the elements of a structure surrounded by living space. In addition, the materials occurred in a pattern similar to that found at Cabin 1, minus the preservation of the living floor. Although there are a number of similarities between cultural material assemblages from Cabin 1 and Cabin 3, two notable differences were found that suggest the cabins served different functions.

Less evidence of food preparation and consumption was recovered from Cabin 3. In all, 38 clam shells, six fragments of faunal bone, and a pewter spoon were recovered. It appears that food consumption occurred at Cabin 3. However, it was not as intensive or as specialized as at Cabin 1, which is believed to have been the cookhouse. The second difference occurred in the assemblage of personal items. A comparatively large collection of personal artifacts was recovered from Cabin 3, especially buttons. A slate pencil, a brass thimble, and several clay smoking pipes completed the assemblage. The prevalence of buttons (Figure 13.18) and the thimble provide evidence that fabric was sewed and mended. Archaeologically, this was the only distant, possible relationship between the cabins and the woolen mill downstream. The slate pencil provides evidence of record keeping. It may have been used by children as they were home-schooled or attended school nearby.

The archaeological data suggest that Cabin 3 was a communal/family cabin and Cabin 1 the cookhouse. As evidenced from the living floor of Cabin 1, these were small structures. The differential use of small earth-fast structures would have made it easier for a large group of people, particularly a family such as the Olmsteds, to subsist on the frontier after they initially moved to the Saratoga area during the late eighteenth century.

## CONCLUSION

The second cabin discovered (Cabin 2) appears to have been the first cabin constructed. Occupation of Cabin 2 was not intensive, and was likely short-lived. Burned sleepers suggest that Cabin 2 burned and Cabin 1 and Cabin 3 were built around the time that this occurred.

Cabin 1 and Cabin 3 represent the second period of occupation at the Olmsted site, perhaps around the time of Lemuel's death and during the time it took to settle his estate. The ceramic assemblages, specifically the absence of whiteware (Miller 1991), suggest the cabins were abandoned by the early 1820s, perhaps after Lemuel's estate was settled. The cabins may have stood abandoned for a period of time and were ultimately dismantled and their building materials salvaged.

The archaeological record of the Olmsted site seems difficult to reconcile against its historical record. On the one hand, the rustic, dirt-floored cabins—identified and investigated archaeologically but not recorded historically—evoke an image of a pioneer family subsisting on a farm carved out of the wilderness on New York's northern frontier.

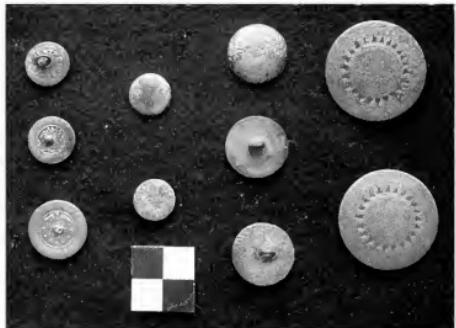


Figure 13.18. Assemblage of buttons recovered from Cabin 3.

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## OUT OF THE FRYING PAN AND INTO THE FIRE: A Revolutionary War Veteran on the Northern Frontier 1796–1846

J. W. Bouchard

### INTRODUCTION

When Nathan Beman trekked to northern New York in 1795 to survey the Town of Chateaugay in the company of his brother-in-law and Revolutionary War compatriot, Benjamin Roberts, both men were impressed by what they saw. Most of the desirable land in Vermont where they had spent their lives up to that time was already settled (Klyza and Trombulak 1999:54) and the two surveyors were seeking a new home for themselves and their families. Neither was suited by experience, inclination, or desire to pursue farming as a means to secure a living. Instead, in 1806 both Beman and Roberts opened taverns. Roberts's was east of town along the main road to Plattsburgh and Lake Champlain (Seaver 1918:237); Beman's tavern probably was on the same road, but closer to his original homeestead and the Chateaugay River (Hurd 1880:459). Perhaps Beman was influenced to open his own tavern by his wife, Jemima Roberts, and her brother, Benjamin.

This paper relates the story of how the two pioneers came to live in northern New York and how history influenced their choices after they arrived. In the case of Nathan Beman, there is also the opportunity to examine the material culture and landscape development preserved in the small archaeological site where he began his life in Chateaugay and where he took refuge after his tavern was burned by the British in the War of 1812. The archaeology and history of the Nathan Beman Homestead reveals how one pioneer and his family lived in northern New York from 1796 to about 1840.

Other studies involving New York rural sites, including Hart and Fisher's volume, *Nineteenth- and Early Twentieth-Century Domestic Site Archaeology in New York State* (2000), recount the archaeology of New York market farmers of the generation following Nathan Beman. While many of these farmsteads were established about the beginning of the nineteenth century, the earliest components of these sites have been masked by the broad-ranging vast changes that occurred after 1850, when the focus of farming enterprises became parti-

pation in the market economy rather than subsistence. Those changes are reflected in cultural material assemblages, deposits, and features, and in the organization of the farmsteads, making later sites largely unsuitable for studying the lifeways of the late-eighteenth-century and early-nineteenth-century settlers. Therefore, the importance of the Nathan Beman Homestead site lies in its documenting how an early-nineteenth-century pioneer and his family lived on the American frontier in New York's North Country.

Nathan Beman, Benjamin Roberts, and the other pioneers who settled northern New York at the end of the eighteenth century and early in the nineteenth century were part of a flood of immigrants from southern New York and New England. This movement was precipitated by a growing population that demanded more land than was available in the already settled parts of the Northeast. Clark (1990) and Henretta (1978) describe the social and economic framework within which the migration occurred. Affleck (2000), in an article on nineteenth-century North Country New York farmsteads near Fort Drum, describes more particularly how the advent of the New Englanders transformed rural Jefferson and Lewis Counties. While some of the farms Affleck describes were established in the 1820s, most of the archaeology of those sites relates to the period after 1850 when northern New York farmers began to participate in the market economy. Rather than addressing the lives and circumstances of the pioneer settlers, Affleck's study focuses on the development of the agricultural economy and its response to market forces, and how those forces transformed farming as the nineteenth century progressed (Affleck 2000:182–192).

In Chateaugay, at least, even the earlier pioneers had access to some consumer goods about 1800. However, the increasing participation of North Country residents in the state and national market economy was made possible as the century wore on by the development of an integrated transportation system based upon railroads. The railroads provided the means of moving farming, mining, and forest products to market, and

brought a greater variety of consumer goods and increasingly sophisticated farming and other equipment (steam-powered sawmills and water-powered paper-making machinery, for instance) into rural communities. This generated additional cash so that most people, regardless of occupation, could afford to acquire costly equipment that increased production, thus allowing them to choose from greater quantities of ever more elaborate consumer goods. Before the advent of this transportation system, livelihoods for most isolated rural settlements were secured on farms and from extractive industries such lumbering, most of the production of which was consumed locally. By the last quarter of the nineteenth century, those in Chateaugay who took up work other than farming pursued occupations such as grain milling; making starch, cheese, or butter; fulling wool; and tanning hides—industries that processed farm products for the local and export market. Still others were blacksmiths and wagon makers whose trades were crucial for the success of the local farms and industries, and another group worked in paper mills that converted the vast northern forest into newsprint and other products that were readily carried to market by railroads (Hurd 1880, Seaver 1918).

When discussing northern New York, Affleck notes that subsistence farms were not self-sufficient. Rather, he describes a society committed to cooperative effort to acquire goods and services that could not be produced on the farmstead (Affleck 2000:180–182). However, the archaeology of the Beman homestead reveals that at the end of the eighteenth century, the waning New England cooperative subsistence mindset, akin to the colonial way of life, never really transferred to northern New York. The new mindset was driven by a demand for manufactured consumer goods that exceeded what mere cooperation among local families could produce. This change was well under way before Chateaugay was settled in 1796, and it played out at the Beman homestead. Finally, Affleck addresses how developing market forces and middle-class ideology influenced homestead site selection and how nineteenth-century farmsteads were organized to present a public face (Affleck 2000:181), a facet of his research that relates directly to landscape development at the Beman homestead.

Beman and Roberts had spent much of their lives before migrating to Chateaugay living in Vermont, and it is there that some elements of the framework for understanding the social and economic forces that formed the Nathan Beman Homestead historical archaeological site can be found. In *The Story of Vermont: A Natural and Cultural History*, Klyza and Trombulak lay out the attributes of late-eighteenth- and early-nineteenth-century subsistence farming (1999:68, 69), and

while this way of life already was being transformed by 1800 by market forces and the demand for consumer goods, significant elements of Vermont subsistence farming were transported to the northern frontier in the late 1790s, thus making it a relevant model for understanding some aspects of how the Beman family lived on the Chateaugay homestead. According to Klyza and Trombulak (1999:68, 69), Vermont subsistence farming was characterized by, among others, the following attributes:

- At the end of five years, a successful subsistence farmstead had at least a rudimentary domicile along with six to 15 acres of tilled land and pasture. About half the land was cleared, the other half remaining forested to supply fuel for heating and cooking. In all, the subsistence farmstead probably encompassed 18 to 24 ha (45 to 60 acres). The shelter would have been built with wood cut on the property.
- In concert with hunting, fishing, and gathering wild plant foods, the food supply was secure. Beef, pork, and mutton; butter and cheese; bread from Indian cornmeal and rye; vegetables such as beans, squash, and turnips; and maple sugar and honey formed the core of the diet.
- At a minimum, a farmer during this period owned a yoke of oxen or a horse, one cow, two swine, and six to 10 sheep. The production of the subsistence farmstead, including grain and hay for the livestock, was 20 to 30 bushels of corn and grain, and 12 to 20 cords of firewood. Local wood was also used to make trenchers and eating implements.
- A substantial portion of the family's wardrobe was produced by turning the wool of their sheep into homespun fabric.
- Largely self-sufficient farmers traded or sold timber, cheese and butter, and livestock for staples such as tea and sugar, and for a few consumer goods such as hardware, glass, and utensils. Most surplus cash was used to pay the taxes.
- Wealth was fairly evenly distributed throughout the subsistence farming community and labor was supplied almost exclusively by the members of the family.

Comparing the Nathan Beman Homestead archaeological site with the seven attributes of late-eighteenth-century and early-nineteenth-century pre-market economy subsistence farms by and large constituted the questions that guided the historical and archaeological investigation of this site. During the fieldwork, we endeavored to recover information concerning landscape development and the Beman family's participation in the

northern New York market economy (if there was one), as evidenced by the presence, absence, variety, and amount of household and personal consumer goods along with the level of self-reliant subsistence and diet.

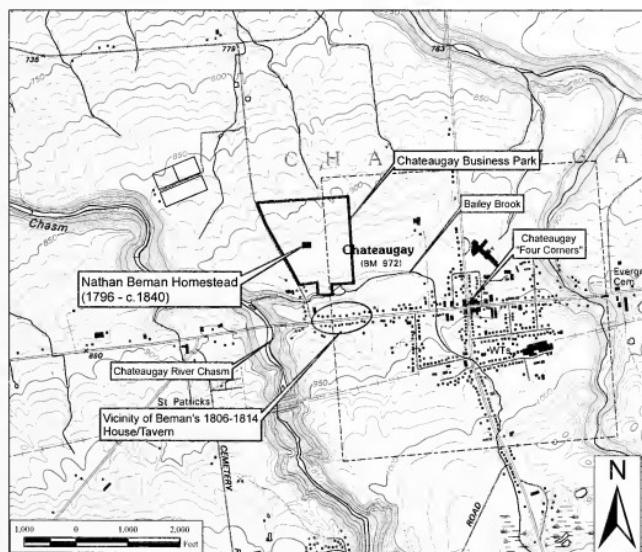
With some modifications to address local conditions, recent historical (Klyza and Trombulak 1999) and archaeological (Affleck 2000) studies in the Northeast set the stage for interpreting the Nathan Beman Homestead archaeological site. Along with the history of the American Revolution and the War of 1812 and what has been gleaned from the historical record concerning Nathan Beman and his family, these studies provide the framework for understanding the Nathan Beman homestead as a unique northern New York archaeological site.

## BACKGROUND, LOCATION, AND SETTING

The archaeological study of the Nathan Beman Homestead site was completed under an agreement with the County of Franklin Industrial Development Agency (CFIDA) for an Army Corps of Engineers permit in compliance with Section 106 of the National Historic

Preservation Act (Bouchard 2003, 2004, 2008). The homestead is located in the Chateaugay Business Park in the Village of Chateaugay (Figure 14.1). As the result of an agreement between the New York State Office of Parks, Recreation and Historic Preservation and CFIDA, the site is now protected within the Nathan Beman Historical Archaeological Preserve. The site itself covers about half an acre (0.2 ha), while the preserve is 0.65 ha (1.6 ac).

The site of the Nathan Beman Homestead is located in the foothills of the Adirondack Mountains where the terrain of the Town of Chateaugay, Franklin County, descends gently from the mountains some 10 miles to the south toward the St. Lawrence River nearly 40 km (25 mi) away. The homestead now is situated on cultivated farmland planted in recent years in a forage crop of grasses and alfalfa (Figure 14.2). Historically, the only alterations to the original landscape have been clearing the native northern hardwood forest and converting the land to an arable field. The field encompasses about 18 ha (44 ac) with the terrain rising gently from an elevation of about 274 m (900 ft) along the north boundary to 283.5 m (930 ft) at the center, where the Beman Homestead site is located. Bailey Brook, a spring-fed tributary of the Chateaugay River, borders the south side of the field.



**Figure 14.1.** Location of the Nathan Beman Homestead.

Detail from U.S. Geological Survey Chateaugay Quadrangle, New York-Quebec, 7.5 Minute Series (Topographic), 1993.



**Figure 14.2.** Northward view of the Nathan Beman Homestead site with Canada and the St. Lawrence River in the far background.

### HISTORICAL CONTEXT OF THE NATHAN BEMAN HOMESTEAD

Understanding the Nathan Beman Homestead site requires not only details of the life and times of Nathan Beman and his family, but also some familiarity with the social, political, military, and economic history of Vermont and New York's North Country. This historical context is set forth below and includes brief summaries of several topics such as Nathan Beman's early life and service in the Revolutionary War, how the northern frontier was acquired by speculators and surveyed, how Nathan Beman and other Vermonters came to settle Chateaugay, and the War of 1812 and its effects on both the community of Chateaugay and the Beman family. The discussion begins with Nathan Beman's early life, continues through the Revolution and the War of 1812, and ends with Beman's death in 1846 and the disposition of his meager estate by his son and grandson.

#### Nathan Beman's Life to the End of the Revolutionary War

Nathan Beman was born in 1754 or 1757 in Vermont (Brown 1910) or in Amenia, Dutchess County, New York (Marston 2005). In either case, by 1775 he was living in Shoreham, Vermont, with his father, Samuel. It was Beman's involvement as a youth in the capture of Fort Ticonderoga in May 1775 that launched his military career. Nathan Beman's exploits during the American Revolution are summarized by Bascom and Holden in *The Men with Ethan Allen at the Capture of Ticonderoga* (Bascom and Holden 1910:303–389).

Nathan Beman, who was Allen's guide into the fort, in 1835 wrote as follows: "I was over 18 years old and resided with my father, Samuel Beman, in the town of Shoreham, Vt., nearly opposite the fort. I had been in the habit of visiting the fort very frequently, being well acquainted with Captain Delaplace's family and other young people residing there. On the day preceding the capture my father and mother dined by invitation with Captain Delaplace. I was with the party and spent the day in and about the fort. On our return to Shoreham in the evening and just as we were landing we discovered troops approaching who we soon ascertained to be Allen and his party. To my father, with whom he had been long acquainted, Allen stated his object, and the proper measures were at once concerted for at once accomplishing it."

The "proper measures" were to assemble a fleet of boats to cross Lake Champlain from Shoreham on the night of May 10, 1775, with a force commanded by Ethan Allen and Benedict Arnold. Presumably guided by Beman, the force approached undetected by the British garrison and entered Fort Ticonderoga. While Benedict Arnold invested the garrison, Ethan Allen confronted the commander and demanded the fort's surrender. While Beman may have been part of the military contingent involved in the event, the colorful version of the role he played in the capture of Fort Ticonderoga was criticized after his death (Bascom and Holden 1910).

Regardless of the importance of his contribution in capturing the fort, Beman soon afterward enlisted in the army for the duration of the Revolution. He served from 1776 to 1783, was a sergeant from July to November 1781, and participated in campaigns against Montréal and Québec (Lewis Historical Publishing Co. 1910). According to his application in 1818 for a pension as a Revolutionary War veteran, Beman was honorably discharged from the army at Fort Edward in June 1783, that "his discharge was signed by Gen'l George Washington and that he was presented with a badge of Merit for faithful service" (General Accounting Office 1818). Beman was 26 years old when he left the army.

During the time that he was soldiering, Nathan befriended Benjamin Roberts and married his sister, Jemima, in 1777 or 1778. She apparently set up housekeeping in Manchester in southern Vermont and, despite Nathan's frequent absences during the war, in the next 11 years the couple had five children (Amy, Mary, Samuel, Sally, and Phebe). Daughter Susan and son John also were born in Vermont, either in Manchester or Ferrisburgh, sometime between about 1790 and 1795 (Marston 2005), but by the latter year the family was in Plattsburgh where son Aaron was born in 1796 (Marston 2005). Beman's occupation after the war

is not known for sure, but apparently he and Roberts had acquired some familiarity with surveying as part of their military service, and in 1795 both had been hired to lay out lots in northern New York in what was soon to become the town of Chateaugay.

### Land Survey for the New Town in Chateaugay

How the Vermonter Nathan Beman came to live in the town of Chateaugay relates directly to the history of land development in northern New York. After the conclusion of the Revolutionary War in 1783, the individual states controlled public lands (Bridgewater 1953:216), which totaled millions of acres. In 1785 the New York legislature voted to reserve some of this territory for Revolutionary War veterans. The four eastern Franklin County townships, which eventually became Chateaugay, Burke, Bellmont, and Franklin, were reserved as a 103,700 ha (256,000-ac) plot designated the Military Tract (Hough 1872: 301). None of the land in the Military Tract was patented directly to veterans, however. Instead, two of the four townships, Township 6 in northwest Clinton County and Township 7 in the northeast corner of Franklin County, were sold to Albany businessman James Caldwell in February 1785 (Durant and Pierce 1878:75). Caldwell was a successful businessman and founder of the village of Lake George, whose speculation in Albany's waterfront development had made him wealthy (HAA 2002). On March 6, 1785, just nine days after he had acquired them, Caldwell sold Townships 6 and 7 to New York businessman Colin McGregor (Durant and Pierce 1878:75). More than a decade later in December 1795, McGregor subdivided Township 7 into 100 lots, most of which he sold to other New York City investors, while reserving a substantial portion, including Lot 57 where Nathan Beman's homestead was situated, for his own use (Durant and Pierce 1878:75). How this land eventually came to be the site of Nathan Beman's home is not recorded in any deeds.

### Nathan Beman and Other Vermonters Settle Chateaugay

Nathan Beman's movements in Vermont and New York from 1789 to 1796 are illustrated in Figure 14.3. Nathan Beman was in his 30s when he and Benjamin Roberts joined the survey team that divided Township 7 into lots in 1795. The new town was 65 km (40 mi) northwest of Plattsburgh and access to Township 7 was restricted to a narrow path cut through the woods. It took two or three days to make the trip, depending upon the weather, the ability of the traveler to maintain a fast pace, and the amount and type of baggage being carried.

In February 1796, Benjamin Roberts trekked to

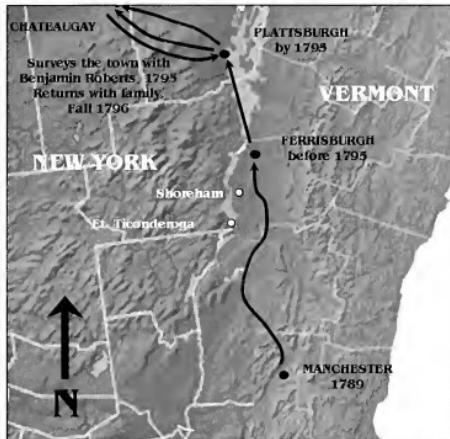


Figure 14.3. Nathan Beman's progress from 1789 to 1796.

Township 7 from Plattsburgh to erect a "rude shelter" north of what is now the village. He returned to Plattsburgh for two months and in April set out once again for Chateaugay, this time with his family (Hurd 1880:456, 457). For his part, Nathan Beman trekked to Township 7 a number of times during the spring and summer of 1796, probably to clear land and to build a shelter for his family. Beman moved Jemima and the children to Chateaugay in the fall of the same year (Hurd 1880:457; Seaver 1918:237).

We do not know what provision Beman had made during his previous visits to shelter the family. Having served for years in the American army during the Revolution, Beman and Roberts may have had some experience with erecting wood structures suitable for the purpose, however. For his part, Roberts had built a "rude hut" for his family in February 1796, but had left it without a roof when he returned to Plattsburgh (Hurd 1880:457; Seaver 1918:237). Doing so assured that the unoccupied structure would not collapse from the winter's snow load. As the land was forested and there was no sawmill at the time, the hut undoubtedly was made of hewn logs. A wood shake or bark roof would have been added when the Roberts family came to Chateaugay in the spring of 1796.

Having spent the spring and summer of 1796 in Chateaugay, Nathan Beman may have erected something more substantial than Roberts's rude hut. Perhaps he built the cabin the archaeological remains of which were found on the homestead. The family apparently

stayed in this building for their first decade in Chateaugay (Hurd 1880:462).

The Bemans' life in Chateaugay assumed an upward trajectory during this period so that by 1806 the town permitted "a public Inn or Tavern be kept at the new Dwelling-house of Nathan Beman's, in Chateaugay" (Hurd 1880:459). Beman's was one of six taverns licensed in the town that year, one of the others being operated by his brother-in-law, Benjamin Roberts. Apparently Beman's stint as a tavern keeper was short-lived because between 1810 and 1816 when anywhere from five to eight other taverns were licensed in Chateaugay, Beman is named as holding a permit only in 1806 (Hurd 1880:459).

With the construction of the new place, the family had two domiciles, the original one on the homestead, and the new house built somewhere outside the 18 ha (44 ac) of the Chateaugay Business Park. Since it was operated as a tavern, the most advantageous business location for the new dwelling would have been along the east-west highway about 0.4 km (0.25 mi) south of the homestead (Figure 14.1). The road now is US Route 11 and Chateaugay's Main Street. In that location the tavern would have been a convenient resting spot for travelers coming from the west, who had just labored to make their way out of the vertical-walled, nearly 45-m (150-ft) deep chasm of the Chateaugay River. Some of the Beman family may have stayed in the 1796 house on the homestead, however, to provide vegetables and meat to assuage the hunger of the tavern's patrons.

According to the federal census (Table 14.1), in 1800 there were eight people living at the Beman homestead, including Nathan and Jemima (U.S. Bureau of the Census 1800). By that year the two oldest children, Amy

(22) and Mary (19), seem to have departed, leaving John, Aaron, Samuel, Sally, Phebe, and Susan still at home. At the time, the six children ranged in age from 17 years for Samuel to four years for Aaron. The last of Nathan and Jemima's children, and the only child to be born after they moved to Chateaugay, was George W. P. (born 1802). By the end of the decade, when both Nathan and Jemima were approaching their mid-fifties, the household had shrunk to six (Table 14.1), including the parents, the infant George W. P., probably son Aaron and two of the three daughters, Susan, Phebe, and Sally (U.S. Bureau of the Census 1810). The children's ages ranged from eight years for George W. P. to 21 for Phebe and 24 for Sally. All of them would have been capable of making some contribution by their work to maintaining and operating both the tavern and the homestead.

Altogether, the decade between 1800 and 1810 marked the high point of the Bemans' lives, as the family was about to fall on hard times. Nathan Beman was foreclosed in 1811 (Seaver 1918:237). What property was foreclosed is not defined, but it may only have been the tavern since the archaeology makes it clear that the homestead continued to be occupied for another 30 years or so. Nonetheless, the challenge of managing foreclosure was only exacerbated by the outbreak of war between the United States and Great Britain in 1812.

### Chateaugay in the War of 1812

The Town of Chateaugay lies across the border from Lower Canada (now Québec), which was controlled by the British in the early nineteenth century. In October and November of 1813, a military incursion into

**Table 14.1.** Federal Census Data for the Nathan Beman Household, 1800–1820.

Age	1800		1810		1820	
	Males	Females	Males	Females	Males	Females
< 10	2 (John and Aaron)	2 (Susan and Phebe?)	1 (Geo. W. P.)	-	-	-
> 10 and < 16	1 (Samuel?)	1 (Phebe? or Sally)	1 (Aaron)	-	1 (Theodore, grandson)	1 (Minerva, granddaughter)
16–18	-	-	-	-	-	-
16–25	-	-	-	2 (? - Susan, Phebe, Sally)	2 (Aaron and George W. P.)	1 (Jane Greer, wife of George W. P.?)
26–45	1 (Nathan)	1 (Jemima R.)	-	-	1 (?)	-
45+	-	-	1 (Nathan)	1 (Jemima R.)	1 (Nathan)	1 (Jemima R.)
Subtotals	4	4	3	3	5	3
Household Total	8		6		8	

Canada was launched from Chateaugay by Major General Wade Hampton. The object of the short-lived campaign was to capture Montréal. Referred to as the Battle of Chateaugay [sic], the outcome was the quick defeat and subsequent withdrawal of the American forces (Bilow 1984).

The only other military action of note involving Chateaugay during the War of 1812 occurred in mid-February 1814 after most American forces that had occupied northern New York were ordered to winter quarters in Plattsburgh. Seizing an opportunity, the British crossed the St. Lawrence River near Fort Covington, about 40 km (25 mi) west of Chateaugay at a location that was called French Mills at the time, and carried away the military supplies that the Americans had left behind. The British also advanced on Malone without resistance and then marched to Chateaugay (Bilow 1984). Besides what they seized at French Mills, the British took whatever other supplies that had been cached by the American army in private homes and in public buildings. In his April 1818 application for a pension as a Revolutionary War veteran (General Accounting Office 1818), Nathan Beman claimed that the British had burned his house, meaning the tavern, during the February 1814 raid. Not only was the tavern burned, but also destroyed were Beman's Revolutionary War discharge papers, the meritorious badge commemorating his seven years of service, and his sergeant's warrant. Beman's deposition stated that his home was burned because he had some "public property in his house . . . at the time that General Wilkinson Retreated from the french mills and that he (Beman) had been a Resisting Citizen of the United States since the year 1783 . . ." (General Accounting Office 1818). It is clear from Beman's deposition that the British burned his house because the old patriot had warehoused some American military supplies.

### Old Age and Hard Times for the Bemans

Beman was 63 years old when he made the claim in 1818 for a pension as a Revolutionary War veteran. Even at this age he was the sole provider for a household consisting of himself, Jemima, and two grandchildren, Minerva (age 12) and Theodore (age 10). Significantly, Nathan said in the deposition that his occupation was hunting and fishing, not tavern-keeping, farming, or any other pursuit. Furthermore, he was disabled by a wound to his head "occasioned by a fall more than a year since" and, finally, he had debts of either \$300 or \$3,000, the actual sum being partly obscured by an extraneous mark or tear in the original document (General Accounting Office 1818). Such hardship and debt must have been distressing for the Beman family, whose head

of household was at an age when there probably was little prospect to pay it off.

The house that the British burned in 1814 was the second house, the one the Bemans operated briefly as a tavern sometime around 1806, not the 1796 homestead house. We know this because there were so few burned artifacts at the homestead that it is clear the house did not burn in 1814. It did eventually burn, but not for at least another 25 years, and then only after the Bemans moved away.

Smarting from the loss of his house in February 1814, and probably badly in need of the money, Nathan Beman at the age of 57 years enlisted in Captain David Erwin's Company in the fall of 1814; at the same time his son Samuel served with Moses Eggleston; Samuel was about 30 years old at the time (Austin 2000; Seaver 1918:621, 625; Bilow 1984:136). Eggleston, from the nearby Town of Burke west of Chateaugay, was an officer in the state militia both before and after the War of 1812. Erwin was from the Town of Constable northwest of Chateaugay. Moses and Erwin each raised a militia company consisting of local men and departed Chateaugay for Plattsburgh on September 11, 1814, the day the Battle of Plattsburgh commenced. They reached Lake Champlain after the battle, which ended with Macomb's victory at Plattsburgh Bay. Subsequently, the British army withdrew to Canada. Not needed for the defense of Plattsburgh, the Erwin and Eggleston companies returned to Chateaugay and the militia was disbanded on September 21 after only eleven days of service and without seeing action (Seaver 1918:219, 625).

With the house/tavern burned and Beman disabled sometime about 1817, the family returned to the homestead and began a 25-year denouement culminating in the abandonment of the property in about 1840. By 1820 most of the Bemans' oldest offspring had left to begin their own families, and Nathan and Jemima headed a household that included grandchildren Theodore and Minerva, as well as sons Aaron and George W. P. and George W. P.'s wife, Jane Greer (Table 14.1) (U.S. Bureau of the Census 1820; General Accounting Office 1818; and grave markers in the East Side Cemetery, Chateaugay). In 1830, the homestead sheltered an even smaller family, consisting of Nathan, Jemima, George W. P., his wife Jane, and their son, Nathan, who was born in 1829 (Table 14.2) (U.S. Bureau of the Census 1830). In these decades George W. P. studied the law and became an attorney (Hurd 1880:460).

Nathan and Jemima persisted through their sixties and seventies at the old homestead house they had built in 1796, but the property languished. The couple had neither the ability nor the means to make improvements or even to keep up the place. Finally in June 1840, when Nathan and Jemima were in their early eighties, they

**Table 14.2.** Federal Census Data for the Nathan Beman Household, Town of Chateaugay, 1830, and the Aaron Beman Household, Town of Malone, 1840.

Age	1830		1840	
	Nathan Beman Household, Chateaugay		Aaron Beman (son) Household, Malone	
	Males	Females	Males	Females
< 5	1 (Nathan, grandson b. 1829)	-	-	2
5 to < 10	-	-	2	-
10 to < 15	-	-	-	-
15 to < 20	-	1 (Jane Greer, wife of Geo. W. P., b. 1812)	2	1
20 to < 30	1 (Geo. W. P., b. 1802)	-	-	2
30 to < 40	-	-	1	1
40 to < 50	-	-	-	-
50 to < 60	-	-	-	-
60 to < 70	-	-	-	-
70 to < 80	1 (Nathan)	1 (Jemima R.)	-	-
80 to < 90	-	-	1 (Nathan Beman, died 1846)	1 (Jemima R., died 1844)
90 to < 100	-	-	-	-
> 100	-	-	-	-
Subtotals	3	2	6	7
<b>Household Total</b>		<b>5</b>		<b>13</b>

left the homestead and moved to live with their son Aaron on his farm in the Town of Malone (Table 14.2) (Census of Pensioners Revolutionary or Military Service 1840:18). The archaeology suggests that no one lived at the Chateaugay homestead much after 1840. The Bemans resided with Aaron and his family until Jemima's death in 1844 at the age of 87 (East Side Cemetery). Nathan died two years later in 1846 (East Side Cemetery); he was nearly 90 years old.

In May 1849, three years after Nathan's death, son George W. P. filed a petition to be appointed administrator of Nathan's estate (County of Franklin Surrogate's Court 1849:File 2484). The surrogate's petition has no detailed listing of the estate, but it was valued at \$30, or about \$700 in today's money. George W. P. died in 1852 and is buried in Chateaugay's East Side Cemetery. Twenty years later, grandson Nathan sold the Lot 57 property to Addie Bush who lived on Main Street directly south of homestead (Franklin County Courthouse, Malone, New York 1872: Liber 51:40). After more than 75 years, the Beman family no longer owned the homestead that Nathan and Jemima settled in 1796.

## THE ARCHAEOLOGY

The site of the Nathan Beman Homestead is now and has been a crop field since its abandonment more than 160 years ago. That the site had been tilled routinely for all of that time is insignificant in relation to the effect of plowing on the disposition and distribution of the artifact assemblage. What is important is that no other disturbance has occurred, leaving nearly intact the 1796–1840s deposit and parts of some sub-plow-zone features such as the house.

The research questions driving the Phase II field work and analysis (Bouchard 2008) were guided by the list of elements of subsistence farms advanced by Klyza and Trombulak (1999) and the work of Affleck (2000) relating to the development of the market economy on northern New York farmsteads. Important goals for the archaeology relating to landscape reconstruction were to define site size and configuration and to search for remains of the domicile, outbuildings, and other features that are typical of early- to mid-nineteenth-century rural domestic sites. In addition, of course, it was critical to the success of the study

to retrieve a sample of cultural material to assist in assessing the site's age and longevity, and to find out to what extent the pioneer Beman family was able to participate in the nascent early-nineteenth-century northern New York market economy. Finally, we also wanted to learn the source of consumer goods for residents of a seemingly isolated North Country town such as Chateaugay.

### Testing Strategy and Field Methods

The fieldwork consisted of establishing a 5-m (16.4-ft) grid for shovel testing that encompassed the 0.5 ha (1.3 ac) of the site. This grid afforded an efficient means of determining site limits, the distribution of cultural material within the site, and the contents of the archaeological deposit. Once the shovel testing was completed, artifact frequency distribution maps were prepared to guide the subsequent placement of the excavation units deployed to search for features. Most of the unit excavations were aligned along the edge of the dark organic soil stain marking the outline of Nathan Beman's house. These excavations, augmented by a few shovel tests excavated

inside the house stain, revealed that the structure had neither a cellar nor a foundation, the sill instead resting on large flat fieldstones placed at intervals around the perimeter of the building.

When shovel testing was completed, the results were tallied by broad categories of artifact types such as domestic/personal class and architecture class. Then frequency distribution maps showing domestic/personal classes by test (Figure 14.4) and architectural class artifacts by test (Figure 14.5) were prepared. The

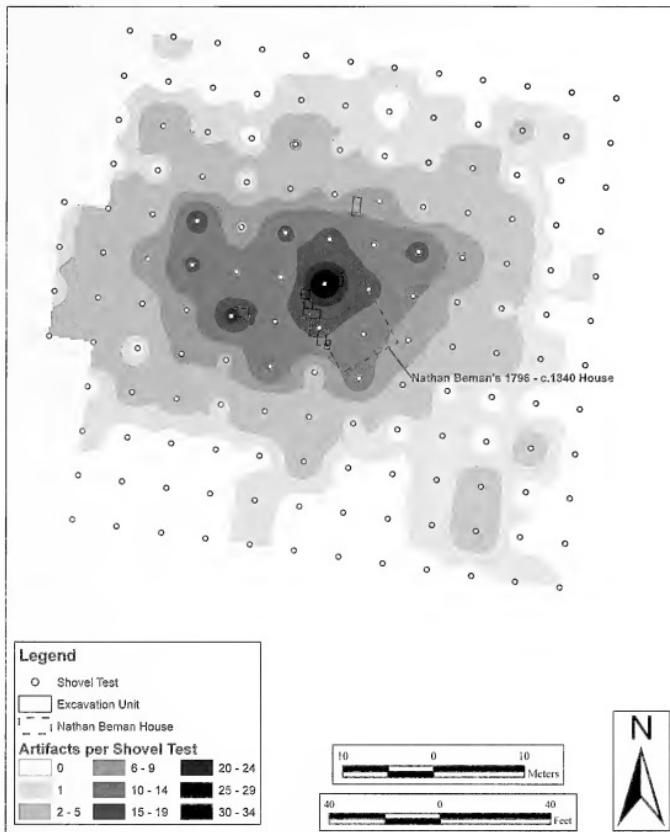


Figure 14.4. Distribution of domestic and personal artifacts among shovel tests at the Nathan Beman Homestead site.

domestic/personal class includes utilitarian and tableware ceramics, glassware and lamp chimney glass, a few eating utensils, faunal bone, metal tools and implements, jewelry, buttons, and the like. Architectural class artifacts were nails, window glass, bricks, and mortar.

### Field Results

Based upon the archaeology, the Nathan Beman Homestead was revealed to consist of the sub-plow-

zone soil stain marking the perimeter of the southwest side of the Bemans' house and the fieldstone fireplace chimney on the northwest side. These remains were accompanied by a plow-zone sheet midden that extended over an area encompassing slightly more than 0.2 ha (0.5 ac). The distribution of architectural materials in the plow zone suggests one small outbuilding stood a short distance west of the house, and possibly a second was situated directly north of the domicile. Neither shovel tests nor unit excavations encountered other features such as a well, privy, or root cellar.

Figure 14.5 shows the distribution of the meager assemblage of 124 nails and window glass with a few fragments of bricks and clumps of mortar mostly clustered in three locations: at the house site, 15 m (50 ft) to the west, and 6 m (20 ft) north-northeast of the house. The unit excavations focused on the house, represented in the ground by a dark organic soil stain that partially marked its footprint. The stain extended for 6.4 m (21 ft) northwest to southeast and marked the longer dimension of the house. The collapsed field-stone fireplace base and chimney were found on the northwest side of the building (Figure 14.6). Charcoal within the organic stain demonstrated that the house had burned. Since only about 6 percent of the artifacts were burned, the fire occurred after the homestead was abandoned. Having accounted for the house in the excavation units, the two other clusters of building materials may mark one or two small outbuildings.

Figure 14.4 reveals that the trash midden of domestic and personal items and faunal bone radiated southwest-

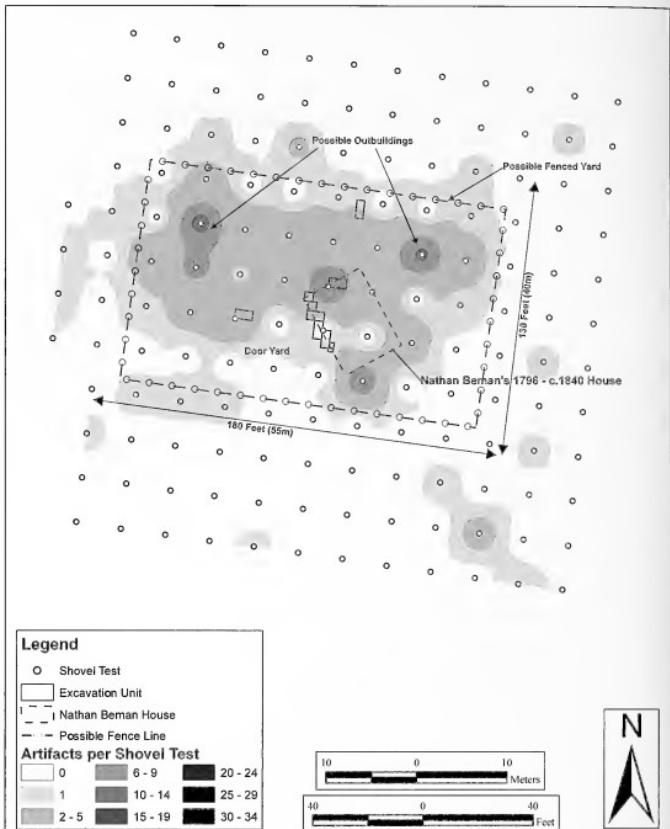
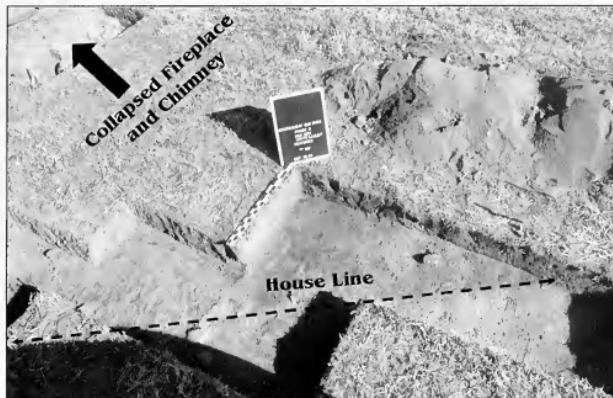


Figure 14.5. Distribution of architecture class artifacts among shovel tests and landscape reconstruction at the Nathan Beman Homestead site.

ward into the yard from what was presumably the front door of the Beman's house. To a lesser extent, it extended north and northeast toward the two outbuildings.

## LIFE ON THE BEMAN HOMESTEAD

The Nathan Beman Homestead site encapsulates a way of life in northern New York that waned rapidly even before 1850 when the Northern Railroad (later to



**Figure 14.6.** Excavations and features in the vicinity of the house at the Nathan Beman Homestead site.

become the Ogdensburg Railroad) was completed (French 1860). With this in mind, what was life like at the homestead for the Bemans from the 1790s to 1840? We know a great deal about the Bemans from both the historical record and the archaeology. The following discussion relates to material culture and how the family lived at the homestead. We know, for instance, of the family's access to consumer goods, the kinds of things that appealed to their tastes and sensibilities, and the layout of the homestead, including generally the number and kinds of structures the family erected, the size of the homestead, and how it was set on the landscape.

### House Construction and Landscape Development

Descriptions of Beman's pioneer house erected in 1796 and the "new house" built in 1806 are not recorded. However, during the spring and summer of the year when Beman started clearing the Chateaugay homestead to prepare a place for his family to live, there was no milled lumber, the first sawmill not coming into service until the following year (Hurd 1880:456, 457). We don't know if Beman cleared the forest and built the 1796 house alone, but his oldest son, Samuel, was 13 at the time and old enough to work alongside his father. Or Beman may also have hired others to help, as his brother-in-law Benjamin Roberts had done (Hurd 1880:457). In any case, considering conditions in Chateaugay in 1796, the first house likely was made of hewn logs, while the 1806 house, erected off site, was

undoubtedly made of sawn logs or dimensional lumber.

So what did Beman build as his first house, and how did it sit on landscape? Of the more than 200 nails recovered, six were wrought and almost all the others were machine cut. They would have been used to secure shingles to the roof and to frame a few windows and the door. Since there were no planking nails for the floor, the house probably had a dirt floor. While the ox that trod the trail to Plattsburgh in the spring and summer of 1796 might have been hauling enough nails to finish a few log houses, the window glass (222 fragments) and bricks (74 pieces) may only have become available in the years following the initial construction, an indication that the Bemans made only minor improvements to the homestead house after it was erected.

The Vermont Department of Historic Preservation's 1783 Hyde log cabin on Grand Isle is an example of a log house (VDHP 2005) that Vermonters such as Nathan Beman were building at the end of the eighteenth century (Figures 14.7a and 14.7b). The Hyde log cabin measures  $6.7 \times 9.5\text{ m}$  ( $22 \times 31\text{ ft}$ ); these dimensions were adopted for the outline of the homestead house in Figure 14.4 and Figure 14.5. The view of the Hyde log house shown in Figure 14.7a is reversed from the department's Web site image to match the orientation of Beman's house on the landscape. This orientation places the fireplace on the northwest side of the building. Putting the massive fieldstone fireplace and chimney here served to block the frigid northern winter winds and delivered the most heat to the coldest side of the home. The interior view of the Hyde log cabin



Figure 14.7a. The Hyde log cabin, Grand Isle, Vermont.  
Vermont Division for Historic Preservation.



Figure 14.7b. Interior of the Hyde log cabin, Grand Isle, Vermont.  
Vermont Division for Historic Preservation.

(Figure 14.7b) shows the fireplace. As the senior members of the household, Nathan and Jemima Beman would have had their sleeping quarters on the first floor. The gable-end windows in the Hyde log house (Figure 14.8a) suggest that the upper space was a sleeping loft for the more junior members of the household.

The three images of pioneer life published by Turner in 1850 in his treatise on the settlement of New York's Holland Purchase (Turner 1850) provide a vivid sense of how the Beman homestead might have looked at the beginning of the nineteenth century (Figures 14.8a–c).

While it would be easy to dismiss the prints as merely Turner's effort to romanticize the pioneer family's struggle, the Beman homestead archaeology conforms remarkably with the two early scenes. Figure 14.8a shows the pioneer homestead during the first winter. There are only two structures, the log cabin and a hovel to shelter hay. A few trees have been taken away to form a small clearing. In the foreground, a brace of oxen and three sheep browse on the tender branches of another recently felled tree. Smoke issues from a hole in the cabin's bark roof, which was only partly finished the first year. This may be how the Beman homestead appeared in the fall of 1796.

Figure 14.8b illustrates the homestead in the following summer. A calf accompanies the oxen while a sow nurses a litter of piglets in front of the split rail fence that excludes the livestock from the house yard and kitchen garden. (Cow, pig, and sheep bones all were represented in the Beman homestead faunal assemblage.) The pioneer woman tends the vegetable garden and a few decorative landscape plantings.

A view of the pioneer homestead 10 years after the first winter is illustrated in Figure 14.8c. There is a sturdy sawn timber addition to the original log cabin. A neat board fence encloses the house, the vegetable and flower gardens, and the orchard. A small shed stands on the right side of the yard; a second shed is at the back corner of the fence. A new barn stands on the left ready to receive the hay piled high on the approaching wagon.

Based on the archaeology, large-scale improvements at the Beman homestead stopped sometime before the tenth-year conditions shown in Figure 14.8c. The outbuildings at the homestead are suggested by minor clusters of building materials 15 m (50 ft) west and 6 m (20 ft) northeast of the house (Figure 14.5). Nathan Beman did not take up farming so there was no need for a large barn, although there seem to have been one or two small outbuildings; perhaps one was a stable for the ox and the pigs. The few sheep that the Beman family kept presumably survived outside year-round.

There was no evidence for a well in the limited archaeology at the homestead, but Bailey Brook is 275 m (900 ft) to the south (Figure 14.1). It would have been a reliable source of cold, fresh water for both the family and their livestock. The Bemans may have elected not to dig a well, relying instead on the spring-fed brook, despite its distance from the house.

While residing at the homestead, the Bemans clearly did not adopt the "middle class ideals of respectability and self-disciplined effort" (Affleck 2000) that in urban communities was evidenced by well-kept and ordered yards. Instead, the Beman homestead midden (Figure 14.4) reflects the family's habit of getting rid of household trash by dumping it in the door yard. The midden



Figure 14.8a. The first winter at the pioneer homestead (Turner 1850).



Figure 14.8b. The following summer (Turner 1850).



Figure 14.8c. The pioneer homestead 10 years after (Turner 1850).

has a roughly rectangular form, with the longer side being oriented essentially east-west across the highest part of the site. The dimensions of the midden are about 55 m (180 ft) east-west by 40 m (130 ft) north-south.

Considering that this deposit was laid down over a period of more than 40 years, the family inhabited a remarkably compact space where virtually all daily and seasonal activities associated with food production and waste disposal occurred within the house, in the yard close to the doorway, or a little farther away west and north of the house.

Figure 14.5, the distribution of architecture class artifacts, emphasizes the roughly rectangular form of the domestic/personal class midden suggested in Figure 14.4. In fact, Figure 14.5 implies that the homestead house and yard were enclosed within a fence, the space encompassed having dimensions of about 39 m (125 ft) east-west by 27.5 m (90 ft) north-south. The fence was equivalent to the ones illustrated for the pioneer homestead in Figures 14.8b and 14.8c and likewise served to exclude livestock from the yard.

Nathan Beman oriented his house toward the southwest, which was the most favorable direction for the solar gain (Figure 14.5). In placing his home on the landscape in this manner, Beman demonstrated an elemental understanding of domestic site planning that was common at the time. According to Affleck (2000:181), "... Although rural builders in the Northeast had always constructed their houses close to the road, ... these structures usually faced south, with little regard for orientation toward the closest public thoroughfare." Affleck continues,

By the last two decades of the eighteenth century, as the influence of the market, and the middle-class ideology that underpinned it, began to extend further into the countryside from the seaports and market towns, New England farmers began to reorganize their farmsteads. Middle-class ideals of respectability and self-disciplined effort came to be expressed in a new rural aesthetic that influenced both appearance and the organization of space. Emulating the ordered, genteel appearance of the towns, farmers began to align their dwellings with the road. This seemingly simple change marked a profound transformation in outlook . . . By changing the orientation of their houses, however, New England farmers began to relinquish their traditional nature-directed lifestyle for one more firmly connected to the town and market. (Affleck 2000:181)

This brief statement captures nearly perfectly the trajectory of the Beman homestead in the years before the War of 1812. The ethic that Nathan Beman displayed when he chose a different site than the homestead for the 1806 house/tavern had not yet pervaded his worldview a decade earlier. Instead, when he built the 1796 house, Beman took advantage of the natural landscape

to make his abode as efficient as possible within the limitations imposed at the time by the setting and the building materials available to him.

The various components of the homestead midden relate the story of how the Bemans lived, illuminate the family's diet, evidence their participation in the market economy (regardless of how well developed it was in the early years of the nineteenth century), and also provide a clue about Nathan's brief service in the War of 1812.

### Hints of International Trade

In addition to the architectural materials such as window glass, brick, and nails already mentioned, a few thousand other artifacts also were found that tell us about day-to-day life at the Beman homestead. These materials reveal that even northern New York pioneer families in 1796 participated almost immediately in an economy at least partially driven by consumer demand. During those early years, all manufactured goods had to be hauled to Chateaugay from Plattsburgh 65 km (40 mi) away by ox-drawn cart (in summer) or sledge (in winter). The first Vermont settlers probably did not individually acquire consumer goods from this distant source. Instead, merchants, or teamsters employed by merchants, undertook this task, a store having opened at the Four Corners in Chateaugay as early as 1805 or 1806. As the largest town on the road between Fort Covington and Plattsburgh and also on the main north-south road leading to Canada, Chateaugay became a regional trading center of sorts, and by 1825 at least five stores had operated at one time or another at or near the aptly named Four Corners (Figure 14.1) (Hurd 1880:459).

The trip to Plattsburgh and back took a week or so, but nearer Chateaugay were two villages in Lower Canada, as Québec was known at the time. The closer was Huntingdon, downstream on the Chateaugay River only 21 km (13 mi) away; the second was Valleyfield on the St. Lawrence River about 50 km (30 mi) distant. Whether the Chateaugay settlers preferred Canadian trading partners or persisted in trekking to Plattsburgh to acquire consumer goods is not recorded directly, although there are a few hints in both the historical and archaeological records that reveal possible ties to Canada.

Two types of ceramics found at the Beman homestead and discussed more fully later on suggest Canadian trade. The first is English yellow-glazed earthenware, a ceramic type uncommon in eastern and northern New York (Figure 14.9a). The second ceramic is a distinctive speckled grayish-green lead-glazed red earthenware (Figure 14.9b). This ware seemingly appears only in northern New York. Before it was found at the Beman

homestead, it had turned up at three nineteenth-century St. Lawrence County sites, all of them close to the St. Lawrence River (Bouchard 1996; McQuinn and Wilkison 2008).

An extensive red earthenware industry operated in Lower Canada up to about 1840 (Canada Museum of Civilization [CMC] 1972). At St.-Denis on the Richelieu River about 120 km (75 mi) from Valleyfield there were nearly 20 small-scale red earthenware potteries. By 1836, the date of peak production, they produced half of all the red earthenware in Lower Canada (CMC 1972:3). While there were potteries in Plattsburgh before 1812 and Malone in the late 1820s (Ketchum 1987:259–262), these were small kilns that operated for only a few years. Hypothetically, red earthenware could have found its way to Chateaugay from either Plattsburgh or Malone, but there is little chance that those same potteries sold their product as far west as Massena where the St. Lawrence County examples of this ware were found. Therefore, the Canadian potteries have real potential as the source of the Beman's red earthenware, a possibility that suggests cross-border trade between Chateaugay merchants and Canadian trading partners in the early nineteenth century.



Figure 14.9a. English yellow-glazed earthenware from the Nathan Beman Homestead site.

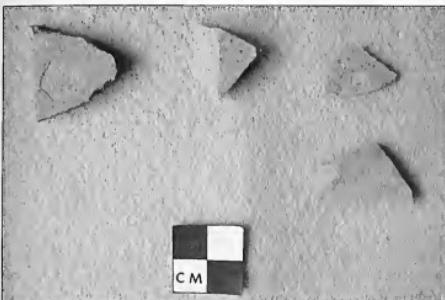


Figure 14.9b. Speckled lead-glazed red earthenware of possible Canadian manufacture from the Nathan Beman Homestead site.



Figure 14.10. Glassware, tableware, and jewelry from the Nathan Beman Homestead site.

### At Home on the Beman Homestead

The North Country frontiersman's life was not always a dreary workaday existence borne of strenuous labor, a harsh climate, and sparse reward. The archaeology at the Beman homestead shows that meals featuring beef, pork, and mutton were prepared in a variety of glazed red earthenware vessels, and the table was set with a colorful array of mismatched plain, painted, and printed plates and bowls. Pewter spoons and two-tined iron forks lifted meat and vegetables alike to the mouths of diners hungry from a day spent hunting and fishing, clearing the forest, hoeing the garden, or pursuing the variety of tasks that kept both the homestead and tavern going. Hot tea poured from black-glazed teapots steamed into delicately decorated pearlware teacups and, occasionally, the diners drank dark whiskey poured into ribbed, thick-bottomed tumblers from a glass decanter (Figure 14.10). All the while, smoke rose from the occasional white clay smoking pipe filled with tobacco. Nonetheless, considering Nathan and Jemima's upbringing in rural Vermont, Nathan's lengthy military service in the Revolution, and the condition of their humble pioneer cabin, it is unlikely that gentility and decorum reigned at family meals.

The pieces of teapots, teacups, smoking pipes, glass tumblers, and liquor bottles found at the homestead let us know not only that the Bemans could afford to purchase these items, but also that there was sufficient extra income to purchase or to barter for the tea, tobacco, and liquor that filled them. While the inventory of bottle glass was limited to 30 fragments, medicine and pharmaceutical bottles are absent altogether, an indication either that the family had no access to medicine,

elected not to use it, or their excess wealth was so modest as not to allow them the luxury.

The largest assemblage of household materials from the Nathan Beman site is the broad range of late-eighteenth-century and early-nineteenth-century wares (Table 14.3). The ceramic assemblage accounted for slightly more than two-thirds of the entire material collection from the site. The more than 2,000 ceramic artifacts included about 400 utilitarian red earthenware, buff earthenware, and stoneware pieces mostly used to process and prepare food, and more than 1,600 white-bodied table wares. Among the unglazed red earthenwares were a few pieces of flower pots that, before they were broken, probably held hardy geraniums, which could have overwintered if sheltered in a root cellar. For the most part, the rest of the ceramic assemblage consists of inexpensive dishes, ranging from tin-glazed buff earthenware made from about 1752 to 1771 to creamware (1762–1825), pearlware (1779–1835), and a variety of whitewares, most of which date from 1825 to 1860 (Miller et al. 2000). The white-bodied ceramics are all or virtually all of British manufacture (Collard 1984; Miller et al. 2000; Noël Hume 1969) and, although imported to North America from Britain, presumably could have been obtained from either American or Canadian sources.

For the collection as a whole, the correspondence of the manufacture dates of the ceramic assemblage with the 1796 to c. 1840 occupancy of the Beman homestead is remarkable. Roughly equal numbers of a little fewer than 300 each of creamware (1762–1820), pearlware (1780–1830), and whiteware (1805–1900) dominate the collection (Figure 14.11). The variety of types in the assemblage is impressive, with five kinds of creamware,

**Table 14.3.** Ceramic Types, Counts, and Manufacture Date Range for Tablewares from the Nathan Beman Homestead.

Ceramic Type	Ceramic Subtype	Number	Manufacture Date Range
<b>Tablewares</b>			
Tin-glazed (delft)	Plain	1	1752–1771
Tin-glazed (delft)	Hand-painted under glaze, blue	2	1752–1771
<i>Total Delft</i>		3 (0.29%)	
Creamware	Plain	291	1775–1820
	Molded edge	1	1775–1820
	Bat printed, black	1	1770–1825
	Hand-painted under glaze	Black	1765–1815
	Hand-painted under glaze	Red	1770–1825
<i>Total Creamware</i>		295 (28.78%)	
English yellow-glazed earthenware		21	1765–1835
Pearlware	Plain	77	1779–1830
	Dipped/annular, diamond pattern	1	1782–1810
	Dipped/annular, molded decoration	1	1782–1810
	Banded	Blue	1770–1825
	Banded	Brown	1770–1825
	Hand-painted under glaze	Brown	1770–1825
	Hand-painted under glaze	Blue	1779–1830
	Hand-painted under glaze	Polychrome	1795–1830
	Transfer printed, blue		1783–1830
	Edge decorated, shell	Blue	1800–1835
	Edge decorated, shell	Green	1800–1835
	Blue or green decorated		1800–1835
<i>Total Pearlware (including English yellow-glazed)</i>		283 (27.61%)	
White-bodied	Plain	118	1780–1900
	Decorated	11	
	Hand-painted overglaze	25	
	Hand-painted overglaze and molded	1	
	Mocha/dendritic	1	
	Transfer printed	3	1780–1900
<i>Total White-bodied</i>		159 (15.51%)	
Whiteware	Plain	116	1805–1900
	Decorated, blue, brown, green	14	
	Mocha/dendritic, polychrome	68	1805–1840
	Hand-painted under glaze	Blue	1805–1830
	Hand-painted under glaze	Brown	1805–1830
	Shell edge	Blue	1805–1835
	Shell edge	Green	1805–1835
	Banded, blue, brown, polychrome		1810–1833
	Dipped/annular, black, polychrome		1805–1860
	Transfer printed	Black	1830–1850
	Transfer printed	Brown	1830–1850
	Transfer printed	Red	1830–1850
	Transfer printed	Light blue	1830–1860
	Transfer printed	Mulberry/Purple	1830–1860
	Transfer printed	Teal	1830–1860
	Transfer print and hand-painted		1840–1860
	Sponged	1	1840–1860
	Hand-painted polychrome		1840–1860
	Flow blue	2	1844–1860
<i>Total Whiteware</i>		281 (27.41%)	
Ironstone/ Hard Paste	Plain, molded decoration	3	1842–1930
Porcelain	Bone china, undecorated	1	1794–2005
<i>Total Ironstone and Porcelain</i>		4 (0.39%)	
<b>TOTAL</b>		<b>1,025</b>	

eleven types of pearlware, and 21 varieties of whiteware (Table 14.3). Most of the whiteware types had dates of manufacture ranging from 1805 to 1835, but even among the later wares, the vast majority were introduced no later than 1830 and were out of style by 1860. There were no sets of dishes as the term is routinely applied today; rather, such a large variety of types reveals that the Bemans acquired their dishes a few pieces at a time to replace broken ones discarded in the yard along with the rest of the household trash.

A few of the ceramic pieces are especially noteworthy since they suggest that the Bemans transported at least some belongings from Vermont. Among the items in this category are three fragments of tin-glazed buff earthenware, commonly referred to as delft, from an ornate piece that is atypical of the assemblage as a whole. By 1796 when the Bemans arrived in Chateaugay, delft had been out of production for about 20 years, so this seems to have been a treasured, carefully curated artifact.

Also unusual are examples of English yellow-glazed earthenware, a ceramic-type coeval with pearlware that was not as popular in the United States. In fact, the writer has seen it in only one other place, a collection of ceramics from the Ratliff house, an eighteenth-century residence and store at 48 Hudson Avenue in Albany. Three examples of English yellow-glazed ware from the Nathan Beman site are illustrated in Figure 14.9a. The market for this ware was decidedly down-scale: "The great majority of these yellow-glazed wares were undoubtedly made for use and decoration in cottages and smaller dwellings where a spot of clear yellow would brighten a dingy mantelpiece or dresser" (Miller 1974:xii).

As a whole, the ceramic assemblage from the Nathan Beman Homestead consists of inexpensive wares, the types of goods common in the early-nineteenth-century homes of people of modest means. Absent from the collection are expensive eighteenth-century wares such as ornate Chinese export porcelain.

## Livestock and Diet

Klyza and Trombulak (1999) list a "yoke of oxen or a horse, one cow, two swine, and six to ten sheep" as livestock typically found on an early-nineteenth-century subsistence farm. These animals are illustrated in Turner's (1850) pioneer prints (Figures 14.8a and 14.8b). The variety of livestock that the Bemans harbored at the homestead is evidenced by the meager assemblage of identifiable faunal bone consisting of cow, pig, and sheep, the only other livestock-associated artifact being a single ox shoe (Figure 14.12a). The story of the tribulations of Benjamin Roberts and his family on their journey to Chateaugay in April 1796 is replete with

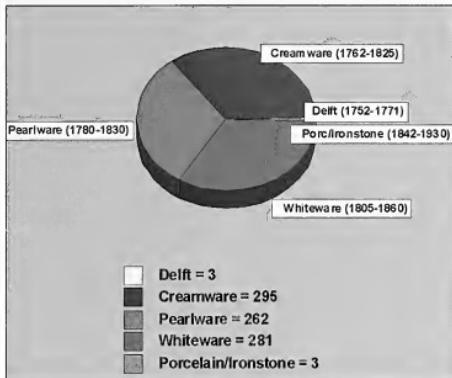
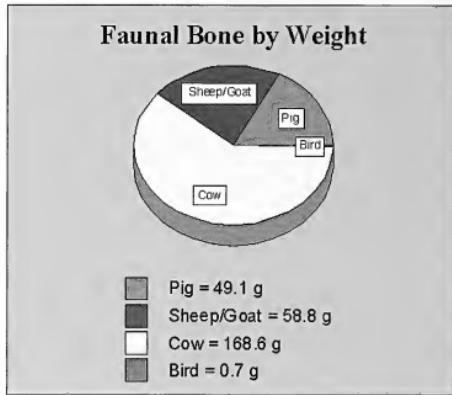


Figure 14.11. Tableware ceramics from the Nathan Beman Homestead site.



Figure 14.12a. Ox shoe from the Nathan Beman Homestead site.

anecdotes including one that one of the ox team "gave out" and was abandoned to fend for itself as the family labored through the deep snow to its destination (Hurd 1880:457). Seaver (1918:237) relates that during the first year, "There was neither money nor means of transportation for bringing large supplies from Plattsburgh at any one time, and thus the one remaining ox was kept on the road (to Plattsburgh) almost constantly through the summer, an entire week being necessary for a round trip." Seaver does not detail the goods that the ox hauled in 1796.



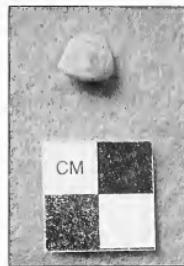
**Figure 14.13.** Nathan Beman Homestead site faunal bone by weight.

The assemblage of faunal bone from the Beman homestead is dominated by pig teeth and cow bones. An impression of the Beman family diet is imparted by Figure 14.13, a pie chart of identified bone by weight. It shows beef constituting more than half of the faunal assemblage, and presumably a comparable proportion of the family's diet; pork and mutton make up most of the rest of the diet.

Three bird bones were found, but they were so fragmentary that species could not be determined. However, a ceramic gizzard stone shows that chickens or turkeys roamed the yard (Figure 14.12b). That the stone was blue transfer-printed whiteware post-dating 1820 reveals that homegrown poultry was a relatively late addition both to the homestead and the Beman's diet. Not surprising considering the isolation of Chateaugay, the family never enjoyed clams or oysters, not one shell of either having been retrieved from the excavations.

In Nathan's deposition in 1818, he stated that until the previous year he had made a living by hunting and fishing. While no deer bone was identified in the faunal assemblage (General Accounting Office 1818), this discrepancy might be remedied by a thorough analysis of the faunal bone from the homestead excavations.

Despite the hardship of being foreclosed in 1811, having their house burned by the British in 1814, and being in debt in 1818, the Bemans still had a few pieces of inexpensive jewelry ornamented with blue glass beads and clear glass gems (Figure 14.10). Their personal appearance was not ostentatious, as evidenced by four



**Figure 14.12b.** Whiteware gizzard stone from the Nathan Beman Homestead site.



**Figure 14.12c.** Metal buttons from the Nathan Beman Homestead site.

plain metal buttons with loop shanks, all dating from the period 1780–1820 (Figure 14.12c). Nor are there straight pins, sewing needles, or bone, glass, or porcelain buttons, a further indication that the family's wardrobe was extremely modest.

Despite his seven years of service in the American Army during the Revolution, the only item relating to Nathan Beman's military career was a bayonet frog of the type used by soldiers in the American army during the War of 1812 (Figure 14.12d). The frog was attached to a leather bayonet scabbard and then secured by slipping it over the soldier's belt.

The only agricultural implement or tool of any kind was a heavily worn garden hoe (Figure 14.12e). Among the few pieces of hardware at the homestead was a possible locking wedge for a vise. Virtually all of the other metal was scrap iron that had been worked and reworked until the pieces were so small as no longer to be of any use (Figure 14.12f).



Figure 14.12d. War of 1812 bayonet frog from the Nathan Beman Homestead site.



Figure 14.12f. Scrap iron from the Nathan Beman Homestead site.

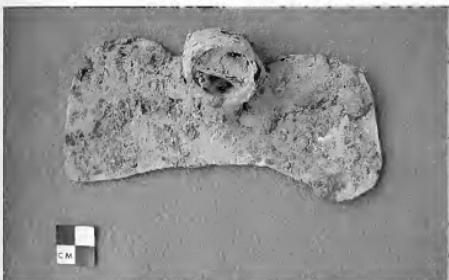


Figure 14.12e. Iron hoe from the Nathan Beman Homestead site.

### The Nathan Beman Homestead Site in Historical and Archaeological Perspective

In the past few decades, scholars such as Clark (1990), Henretta (1978), and others have claimed that subsistence farmers in the northeastern United States in the early nineteenth century essentially led lives best characterized as subsistence-surplus. Subsistence farm families, among whom the northern New York pioneers of Chateaugay presumably were a subgroup, ostensibly supplied most of their own basic needs and exchanged surplus agricultural produce for both necessities and luxuries (Affleck 2000:180). This model suggests that the typical archaeological assemblage from a subsistence farm or pioneer household should reflect an impoverished material culture. However, the archaeological record of the Beman homestead clearly fits a different paradigm, one that reveals that northern New York pioneers at the turn of the nineteenth century

already had abandoned the subsistence farm mindset of the previous century. Instead, they desired and had access to consumer goods as well as the means to acquire them almost immediately after arriving on the frontier. While the Nathan Beman homestead conforms in some ways to the subsistence farm model, clearly the family had a complex relationship to a market economy that allowed them to acquire a variety of inexpensive to moderately priced consumer goods focused mainly on tablewares. At the same time, the family also had a few personal items while eschewing elaborate dress and household furnishings. The income from the homestead, and for a brief period perhaps from the tavern too, provided a surplus sufficient for the Bemans to enjoy a few luxuries such as alcohol and tobacco.

Having no desire to be farmers, the Bemans instead relied upon their pioneer homestead as a jumping-off point for other pursuits, namely a new house and tavern that was, based on the archaeological survey of the entire 18 ha (44-ac) business park property, built elsewhere, probably along the main east-west road through Chateaugay. The tavern idea may have been an outgrowth of discussions between Nathan, Jemima, and Benjamin Roberts, Jemima's brother. In any case, this enterprise ultimately was not successful since the town records show that Beman had a permit to keep a tavern only for a brief period, possibly only the year 1806. Deprived of whatever income the tavern had generated, the family suffered an even greater loss when the house where it had been located was burned by the British army in 1814 after Beman, an old patriot and Revolutionary War veteran, warehoused military supplies for the American army. Retreating to the homestead after the house/tavern was destroyed, the family fell into debt. More than 60 years old in 1814, Nathan and Jemima made no substantial improvements to the

homestead for the next 25 years. In combination with Nathan's pension as a veteran of the Revolution, the Bemans husbanded their meager resources and persisted on the old homestead until 1840. They were frugal New Englanders who were in the habit of getting by according to the old adage to "use it up, wear it out, make it do, or do without." In short, Nathan and Jemima personally may not have felt especially deprived in the last decade or two at the homestead.

It is easy to conclude that the lack of improvements at the homestead meant that the Bemans' later life was characterized as one of privation if not poverty, and that they failed to take advantage of other opportunities that might have accrued to a pioneer family on the New York frontier at the beginning of the nineteenth century. So, were the Bemans inept managers or were they simply disinterested in the trappings of middle-class success? The trajectory of Nathan and Jemima's lives and those of their children and grandchildren suggests an answer.

Several of the Beman's sons and grandsons rose to prominent positions in Chateaugay or attained success in the broader community that encompassed county and state government. For instance, George W. P., the son who lived the longest with Nathan and Jemima, became an attorney. His son, also Nathan Beman, was a Chateaugay merchant and "president" of the village from 1872 to 1874 (Hurd 1880:463). Among the more prosperous residents of Chateaugay, grandson Nathan's residence and some of his commercial holdings appear on the 1858 Chateaugay village map (Taintor, Dawson & Co. 1858). Great-grandson Samuel A. Beman, born in Chateaugay in 1843, became an attorney and a member of the New York State Assembly. Subsequently, he was elected district attorney for Franklin County and a county judge, a position he held until 1908 (Lewis Historical Pub. Co. 1910). Finally, we know that Nathan and Jemima spent their waning years living on their son Aaron's farm in the town of Malone.

While George W. P. could have become an attorney with minimal investment, and Aaron might have been able to acquire a farm of his own by paying for it over time, we cannot discount the possibility that, rather than spending whatever income the homestead generated, the Bemans may have expended the surplus to assist their sons' pursuits of careers that led them away from the old home place. If this were the case, the strategy succeeded since once established in the North Country, the following two generations of the Beman family made ever-greater contributions to the civic and commercial life of the village, town, county, and state.

Among Nathan and Jemima's descendants, the one who arguably had the greatest influence on northern New York was Theodore T. S., the offspring of Nathan's oldest son Samuel. During the middle of the nineteenth

century, he was a noted civil engineer with the U.S. Coast and Geodetic Survey. He also surveyed the Ogdensburg Railroad, which was completed through Chateaugay in 1850, four years after Nathan Beman's death. The railroad implemented the greatest change to the local economy to that time, since it provided a ready means to deliver to distant urban markets the agricultural and forest products that the Town of Chateaugay was best suited by geology, geography, and climate to export. On return trips, the railroad brought a complex variety of manufactured goods. These fed the burgeoning demand for consumer goods that the pioneer settlers had begun to develop while they were still in Vermont. The railroad also made available the sophisticated machinery that eased the burden of farmer and lumberman alike. But the railroad that Theodore T. S. Beman surveyed also engendered another unanticipated but no less significant change to Chateaugay: It provided a way to escape a place where harsh winters and short growing seasons were the norm. When faced with the opportunity to leave the North Country, many people voted with their feet. The result was a decline in population from 3,728 in 1850 to 3,183 residents in 1860



Figure 14.14. Nathan Beman's granite grave marker, East Side Cemetery, Chateaugay, New York.

(Secretary of State 1869). The descendants of hardy eighteenth-century settlers like Nathan and Jemima who had trekked to the North Country from Vermont realized that there were other places with greener pastures, and the railroad led to those places. As a result, in the decade before the Civil War, one in seven people left Chateaugay, probably by railroad.

For his part, Nathan Beman's role in the public affairs of the Town of Chateaugay was limited to a single term as a highway commissioner (Hurd 1880:462). His other public service was as a soldier for seven years during the Revolutionary War and again for an 11-day stint as a private soldier in 1814 at the age of 57. Apparently, the only salient notoriety in a life that spanned nearly 90 years was Nathan's claim to have guided Allen's forces across Lake Champlain to capture Fort Ticonderoga in May 1775. There is no independent confirmation of Beman's actual role in the taking of the fort, so it is telling that the family chose not to characterize him as a hero on his gravestone. The existing granite marker postdates Beman's death by several decades and may have been erected by his grandson, Nathan. The headstone reads simply, "Soldier of the Revolution" (Figure 14.14).

## ACKNOWLEDGMENTS

The archaeology for the Chateaugay Business Park and the Nathan Beman Homestead archaeological site was undertaken by the County of Franklin Industrial Development Agency, the project sponsor, as part of compliance with requirements with Section 106 of the National Historic Preservation Act. Deed research for the homestead property was donated by professional abstractors Todd Lepine and Ed Bourgeois for Franklin and Clinton Counties, respectively. The field work was undertaken by Hartgen Archeological Associates, Inc. by archeologists Neni Isaac, Corey McQuinn, and Kevin Moody under the direction of Bill Bouchard.

I especially thank Hartgen coworker and project director Corey McQuinn who had the insight to recognize that if Nathan Beman had a second house it was not built at the homestead but somewhere else. This resolved the seeming conflict between Beman's statement that his house was burned by the British in 1814, while the archaeology demonstrated that the homestead house did not burn until much later on, probably after 1840. These realization led to new and fruitful directions for interpreting the Beman homestead.

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## THE LANDSCAPE ARCHAEOLOGY OF THE AGRARIAN MYTH: Tenant-to-Owner Transition on a Nineteenth-Century Adirondack Farmstead

Corey McQuinn

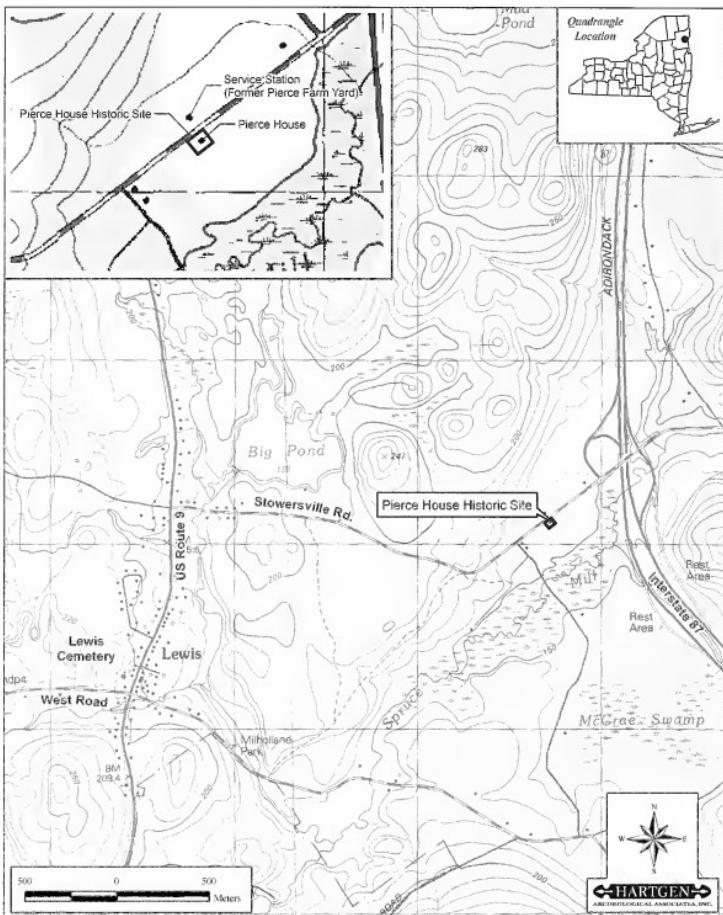
In his co-edited New York State Museum Bulletin on the historical archaeology of domestic sites, Charles Fisher explored the issue of landscape as a form of material culture (Fisher 2000). While this is not a new concept in archaeology, Fisher brought it to bear on New York State archaeology with his discussion and interpretation of the John Ellison house at the Knox's Headquarter State Historic Site in Orange County, New York, while focusing on the changes in the social and physical landscape in the early nineteenth century. He also was quick to point out that the same phenomenon occurred throughout the rest of the century at other sites in New York. Landscapes, as artifacts of material culture, can be "considered as products of the existing social structure and political ideology" (Fisher 2000:63). Most importantly, perhaps, landscape can be modified to reify ideas of social relationships and class. As a more visible expression than the components of a dinnerware set or the image on a pipe bowl, landscape has the potential to be the loudest conveyer of class negotiation and social expression of the entire set of material culture.

Landscape as an element of material culture has been analyzed and discussed in contemporary archaeological accounts (Delle 1999; Yamin and Metheny 1996a). Rubertone (1986:123) cites the decisions that factor into the creation of the cultural landscape as the manifestation of class and social relations in a community. As landscape archaeology became more widely considered as a rich avenue of historical data, criticism of previous archaeological investigations cited the lack of concern for the built environment and landscape around the center of the domestic site: the house. While shovel test pit patterns can identify the horizontal limits of activity areas, more obvious clues presented by vegetation patterns, organization and alignment of structures, and building chronology are more informative to the understanding of the landscape development (Rubertone 1986:124, 127). Archaeologists use a multidisciplinary approach in analyzing the archaeology of a historical landscape (Yamin and Metheny 1996b:xv). Equally important is the combination of archaeological method-

ology with historical research, or, as Yentsch has stated, "good historical archaeology is focused upon people" (Yentsch 1996:xxv).

Orser's (1988) work on southern post-bellum farms demonstrated how landscape elements of housing, construction materials, and the broader settlement patterns, when analyzed with other cultural, spatial, and temporal characteristics, provide a good way of comparing tenant and owner occupations (Mascia 1996:153; Orser 1988). Since landscapes can be considered "the stage for human action (Yamin and Metheny 1996b:xv)," interpreting this context is essential to fully understanding the symbolic significance of historical domestic contexts.

Landscape and spatial arrangement as social constructs and cultural material figured largely in the interpretation of the Pierce House Historic Site (Pierce site) in Essex County, New York (Figure 15.1 and Figure 15.2; McQuinn and Wheeler 2007). The Pierce site in the Town of Lewis is situated at roadside on a 6.9-ha (17.1-ac) parcel that in 2002 was slated for construction of the new Essex County Public Safety and Corrections Facility (Figure 15.2). Across Stowersville Road, where at least two barns once stood, now stands the Pierce family's truck repair garage and gasoline station, which capitalizes on traffic from Interstate 87, the Adirondack Northway, about 500 meters (0.31 mi) east of the site. The archaeological site investigated for the Phase III data retrieval consisted of the house and rear addition, a garage and workshop, a chicken coop, and the surrounding grounds. The architectural analysis of the house coupled with the archaeological evidence suggested that the house was built between 1810 and 1830 and subsequently moved to the site during the 1850s. The rear was added around 1880, coinciding with decorative updates inside and outside. A carriage shed and workshop (referred to here as the garage) likely were built in two stages. The open carriage shed probably was built during the 1870s. The workshop used framing members from the older part of the house that had been removed when the addition was built around 1880. Finally, the chicken coop behind the garage was con-



**Figure 15.1.** Location of the Pierce House Historic Site in the Town of Lewis, Essex County, New York.  
Detail from U.S. Geological Survey Lewis Quadrangle, New York, 7.5 Minute Series (Metric Topographic), 1999.

structed sometime during the early twentieth century. None of the farmstead's barn buildings across Stowersville Road were extant at the time of the archaeological survey, and their location was not part of the area of potential effects.

The archaeological interpretation of landscape features and activity areas helped to define dynamic

changes to the house and yard in the 1880s that marked the farm's transition from decades of tenant occupation to owner occupation by a former neighbor, John Roberts. Other contexts bore evidence of the economic and social realities of tenancy, including rapid turnover of occupants and tightly circumscribed house lots. While archaeological analysis of landscape has tended



**Figure 15.2.** The Pierce house and garage. The front part of the house dates to ca. 1810–1830 but was moved to the site in the 1850s. The rear addition and garage were built ca. 1880.

to focus more on elites, more recent studies are focusing on the landscapes of minorities and working-class people (Delle 1999; Mascia 1994, 1996).

This chapter analyzes the landscape of the Pierce site as a cultural artifact, focusing on the house and the surrounding yard areas. The analysis of the site offers another archaeological manifestation of the “Agrarian Myth,” a growing concern for archaeologists in the Northeast. The chapter begins with a brief cultural and historical context for the Pierce site, including Adirondack agriculture. Archaeological research goals and a brief summary of the results are then presented. Documentary histories of the tenants and owners of the Pierce site are followed by descriptions of archaeological landscape contexts pertaining to each of those periods and the transition ca. 1880. Finally, the landscape archaeology of the Pierce site is discussed as it relates to the Agrarian Myth, including inter-site comparison.

## CULTURAL AND HISTORICAL CONTEXT

The Pierce site lies on the edge of the Adirondack Mountains. During the seventeenth and eighteenth centuries, Essex County could be described as mountainous hunting ground in the west and low-lying fertile valleys in the east along Lake Champlain. Settlement of the Champlain Valley corridor began after the French and Indian War ended in 1763, carried out mostly by New Englanders (Watson 1869:710). Another surge in settlement occurred around the 1820s and 1830s during the construction of the Champlain Canal, which was thought to be a boon to the region (Bernstein 1972:59).

The population of Lewis grew steadily throughout the nineteenth century, from 779 inhabitants in 1824 to 1,803 in 1860 (French 1860:306; Spafford 1824:279). Iron mines and logging camps operated sporadically in the town, creating an influx of laborers for short periods of

time. Some of the more important iron works were located in Willsboro and on the Boquet River in Westport (Smith 1885:297). By 1875, tourism had commenced in the Adirondack region, bringing New Yorkers through Lewis and Elizabethtown on the way north to Saranac Lake and Lake Placid, two major destinations in Essex County (Bernstein 1972:66).

One historian in 1885 wrote that the Town of Lewis had “not much of a history” (Smith 1885:560). By this point, the timber and mining industries were waning and no mention was made of agriculture. Bernstein (1972:45) places the decline of agriculture in the county just after World War I with a “catastrophic” collapse occurring in 1930. The total number of farms in the county declined from 1,757 in 1930 to 300 in 1970 (Bernstein 1972:74, 86). The Northway cut through the adjacent hamlet of Stowersville in 1967. Because of the Northway, places like the Pierces’s service station opposite the site on Stowersville Road brought new economic vitality to limited parts of Essex County.

## AGRICULTURE IN THE ADIRONDACKS

Unfortunately, historical accounts of the Adirondack Park largely omit or gloss over agriculture’s rich tradition, creating the illusion that agriculture was absent or marginal (Harris 2002:165). This is exacerbated by the present-day scarcity of farms in the park as well as a historical schizophrenia about the pros and cons regarding farming in the mountains. Farming approached its peak in the Adirondacks around 1890, although it continued in earnest through the 1910s with what some have termed a catastrophic collapse coming in the 1920s and 1930s (Bernstein 1972:45; Jenkins 2004:17; McMurry 1999:117). Local farmers relied heavily on local markets; fluctuation in larger, distant markets could have disastrous effects on the Adirondack farmer. This fostered a diversified lifestyle of wage labor and subsistence-surplus agriculture.

Historical accounts of Adirondack agriculture are full of contradictions regarding the worth of farming in the mountains. Early promoters of the area stated that the region had rich soils, suitable for all kinds of cultivation (McMurry 1999:122). Early on, small family farms could be found at permanent settlements on the interior of the mountain range where transporting food was difficult (Jenkins 2004:17). To the west, on the other side of the Adirondacks, dairy farming proved more profitable (McMurry 1995). One of the most vociferous supporters was Ebenezer Emmons, who hoped that the range would become the home of “thrifty yeomen” (Terrie 1997:16). It was even said by some that clear-cutting forests to make way for agriculture would go a long

way toward tempering the climate. McMurry states that there were several reasons why some people favored the hilly landscape of the Adirondacks for farming, including the readily available forest products, cleaner air, and better drainage (1999:125–126). The Hinckley and Windsor soils found in the project area are excessively drained and are considered in modern soil surveys to have few plant nutrients (USDA 1975).

Regardless of the historical opinions, farming the Adirondacks held its own unique pitfalls and risks. Many early farmers came from Vermont, where farmland was being exhausted by the 1820s (Harris 2002:178). These people often could not secure credit with downstate speculators, nor could they afford the move out west (Terrie 1997:24–28). Some of these families lived as squatters in the houses of failed mountain farms and struggled through their first years, sometimes never planting a single crop (Harris 2002:178; Terrie 1997). Even in the early days of settlement when farms across New York still largely operated on a subsistence level, Adirondack farmers often needed supplemental income to barter for goods at market. This condition was exacerbated as subsistence farming gave way to agricultural capitalism during the mid-nineteenth century (Parkerson 1995; McMurry 1988, 1995). Family members found work during the summer and winter in the iron mines, hemlock forests, and mills of the Adirondacks to help with expenses (Terrie 1997). Even successful farmers turned to wage labor to maintain what was required to sustain their position (Clark 2000:16).

Although it was fairly common, wage labor could be considered a defense mechanism in a highly volatile agricultural market. The viability and profitability of certain agricultural markets affected farmers directly in Essex County, especially in what could be considered a marginal landscape (Harris 2002:178). By and large, it is possible that the Lewis farming community saw the Adirondack sphere as their best market, especially as new logging and mining camps opened, which demanded food for the camps and home and fodder for teams of horses and mules. The occupants of the Pierce site persisted with diversified farm production to meet market trends throughout the nineteenth century.

## ARCHAEOLOGICAL RESEARCH GOALS AND RESULTS

The documentary and contextual history of the Pierce site followed a common dynamic in Northeast agricultural societies that has been poorly understood. The tenant-to-owner transition has been noted on other sites by clear markers of the shift in the material culture patterns (Mascia 1994, 1996; Orser 1990). This, as Fisher reminds

us, includes not only the artifacts found in the ground, but also the surrounding built environment as an artifact (Fisher 2000:63). The methodology employed for the Pierce site data retrieval consisted of interpretation of the diverse archaeological contexts supplemented by historical research and architectural analysis. This multi-disciplinary approach to analysis revealed trends in the development of the domestic landscape that pertained to the transition from tenant-to-owner occupation of the site.

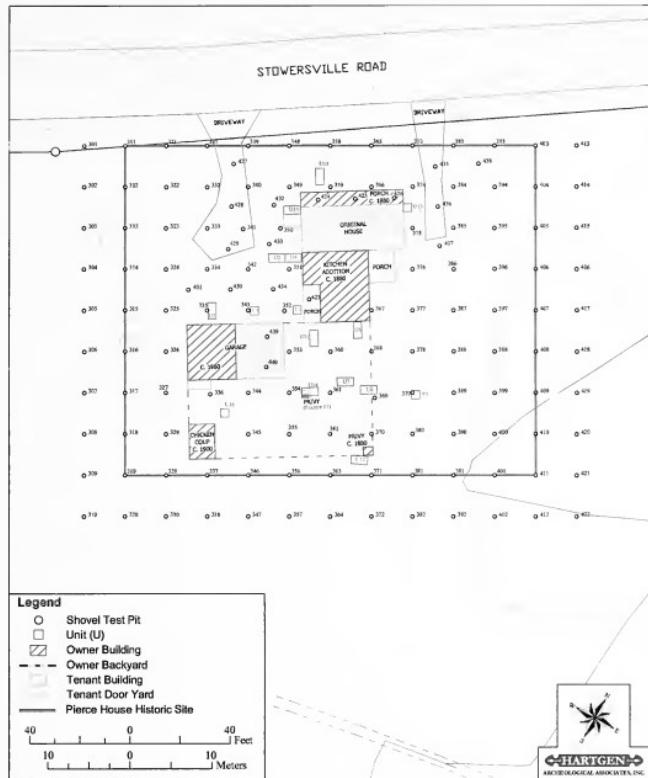
In-depth interpretation of the site grew out of the inconsistencies that arose from the combination of historical maps, the apparent date of the house, and the occupation period suggested by the archaeological assemblage. The Pierce house did not appear on the earliest historical map of Lewis, even though the house resembled other types common in the first quarter of the nineteenth century. Furthermore, the ceramic assemblage suggested an initial occupation date of about the 1840s, based on the near-total absence of pearlware and other early ware types and the preponderance of transfer-printed and flow-transfer-printed vessels, common in the late 1830s through the Civil War. Historical documentation provided a check and balance for the contradictory physical data at the site. Based on the combined interpretation of all available data, it appears that the house was moved to the site around 1850, after the location was farmed by others for about 15 years. For about three decades, at least five different tenant farmers occupied the site, until ca. 1880.

The period of owner-occupancy spans from 1880 until 1916. In 1880, the farm was purchased by a local farmer who doubled its size over the next 10 years. John Roberts grew up across the field from the tenant farmhouse and invested in both expanding his holdings and updating the structure. Roberts made substantial changes to the house and yard, reflective of a change in occupant status and means. The beginning of this period nearly coincides with the peak in Adirondack agriculture. In 1899, the farm was sold to William Smith. By 1904, the farm had begun to fail and in 1908 it reverted back to tenant occupancy as the residing Smith family sold the farm but briefly continued their work as tenants.

As an interpretive tool in historical archaeology, deeds and census records provide information on individuals and families that can be associated with distinct archaeological contexts. From that personal connection between people and artifacts, there is an opportunity to view archaeological assemblages in terms of ethnicity, class, and socio-economic means. At the Pierce site, historical documentation was utilized as a supplement to an already rich archaeological data set. Stratigraphic shifts in occupational periods, diagnostic architectural

features, and activity area changes all showed how the landscape changed. The historical record provided a framework for understanding why the changes occurred. In addition, information was collected from the house during an architectural survey, including construction episodes, diagnostic hardware, and other temporally diagnostic features. Mascia states that it is necessary to use documentary evidence as well as archaeological evidence to describe the landscape archaeology of the tenant-to-owner transition, especially because the transition can be manifested in architecture or spatial changes and not in the artifact assemblage. This helps to identify contexts that fit into the time periods identified during the research (Mascia 1996:154).

To search for transitional signs in the archaeological record, excavations focused on finding stratified, datable features and investigating the densely stratified dooryard deposits for temporal shifts in activity areas. The archaeological data retrieval covered all portions of the front yard, dooryard, and backyards (Figure 15.3). Field investigations included unit excavation and shovel test pits at a 5-m (16.4-ft) interval. Nearly 10,000 artifacts were collected from the dense dooryard sheet midden, two privies, the scattered backyard midden, and a trash pit adjacent to the back wall of the house. One of the privies, near the back wall of the rear addition, dated to the latter half of the tenant phase of occupation. This privy was impacted by a septic tank pipe and no additional examination was undertaken. The second, deeper privy was found at the rear of the backyard and was much larger than the earlier privy. The Roberts and Smith families, both owner-occupants, used the privy from about 1880 until about the 1930s, when it was either abandoned or ceased to be used daily. The vault was filled with soil from one of



**Figure 15.3.** Map of the Pierce site, showing the locations of features, excavations, and structures.

#### **the septic tank excavations**

Most of the artifacts from the tenant period were found in the dooryard, an area now used as a driveway between the kitchen or rear of the house and the workshop (Figure 15.3). The dooryard was a busy activity area during the nineteenth century. Artifacts, especially ceramics, found in this vicinity were crushed, trampled, and scattered by years of wheeled, hoofed, and heeled traffic. Due to this, it was impossible to arrive at statistically significant comparisons of tenant-versus-owner artifacts. General statements were made based on the location and quantity of three artifact classes: medicinal bottles, tobacco pipes, and ceramics.

Very few identifiable pharmaceutical bottles were found at the site. This paucity might result from one or more of several possibilities, including reuse of bottles, reliance on local doctors and more traditional medicine, and the availability of patent medicines in the rural town of Lewis. Glass fragments representing at least seven individual medicine or prescription bottles were identified. Only one of those, a prescription bottle, could be related to the tenant phase of occupation. The others were a mix of prescription bottles and patent medicine in owner-phase contexts.

Tobacco pipes served as a comparative marker between the tenant and owner phases as well. Granted, there is a temporal shift in tobacco pipe usage after 1850 around the time of the transition (Cook 1997:29), but this shift away from tobacco pipe use in rural areas likely happened later than in urban settings. There was a clear shift in tobacco use during this time at the Pierce site. Out of the 77 tobacco pipe fragments from the selected contexts, at least 26 individual pipes were identified. Of those, 19 pipes were identified in tenant contexts; only five were associated with owner contexts and two others were from unaffiliated contexts. Tobacco seeds found in the owner privy suggest use of tobacco within the household in some form. The paucity of tobacco pipes in owner-period contexts implies a shift away from using the items, which were rapidly becoming associated with working- and lower-class people and being replaced by the middle and upper class with cigars, briar pipes, and snuff after 1850, when the tenant period began at the Pierce site (Cook 1997:29).

Contexts used in the comparative analysis covered the dooryard, the privy, and the front yard, all areas associated with pipe use and discard by men and women during their daily activities. Despite the inclusions of areas

typically containing high numbers of pipe stem and bowl fragments, such as workshops and front porches, both areas during the owner period failed to yield significant evidence of tobacco use. All of the owner-period pipes were found in the backyard and privy. The tenant-period pipes were uniformly scattered about the dooryard, where the bulk of daily activities took place.

Analysis of ceramics on archaeological sites to examine socio-economic or class-based behavior patterns is common in northeastern historical archaeology. Ceramics at the Pierce site showed differentiation that could be attributed to the socio-economic positions of the tenants and owners occupying the site. The tenant-phase contexts are also a result of temporal differences and the itinerant nature of tenant farming.

The trampled, fragmentary nature of the ceramic assemblage, especially in the dooryard, made close analysis of ceramic vessel forms impossible in all but a very few cases. Whiteware patterns and decorative techniques during the tenant phase were indicative not only of the deposit's time period, but also of the piece-meal and variable nature of the families' table and tea settings. Transfer-printed whiteware, typical of the late 1830s through the Civil War, dominated the tenant collection (Table 15.1). This extends through a period when minimally decorated whiteware and molded ironstone whiteware were becoming more popular and widely available after the Civil War (Samford 1997:4). Also among the tenant assemblage were several pieces of annular or factory-decorated slipware vessels. This type of ware decoration was reserved for food preparation and beverage vessels and is thought to be one of the more inexpensive ware types, especially during the mid-nineteenth century (Sussman 1997:74). Accompanying these were edge-decorated whiteware and

**Table 15.1.** Whiteware Vessels, Selected Tenant Phase Contexts.

Whiteware Type	TNF Quantity <sup>a</sup>	TNF %	MNV Quantity	MNV %
Edged	7	2.4	4	8.2
Dipped/Annular	56	19.5	4	8.2
Hand-painted	10	3.5	5	10.3
Blue transfer-print	16	5.6	6	12.2
Red transfer-print	7	2.4	1	2.0
Black transfer-print	24	8.4	6	12.2
Purple transfer-print	23	8.0	7	14.3
Green transfer-print	4	1.4	2	4.1
Flow-Blue transfer-print	2	0.7	1	2.0
Undecorated	23	8.0	6	12.2
Undetermined	115	40.1	7	14.3
<b>TOTAL</b>	<b>287</b>	<b>100</b>	<b>49</b>	<b>100</b>

<sup>a</sup>TNF = total number of fragments; MNV = minimum number of vessels

hand-painted whiteware, which by the end of the tenant period were becoming even more inexpensive and being replaced by the more fashionable Victorian period ceramics (Miller 1980, 1991).

### THE TENANT PERIOD: 1850–1880

The documentary research provided a dated framework for interpreting the assemblage and stratigraphy of the site. The site began to be farmed as early as 1835, but it was not occupied until as late as 1851. From about 1850 until 1880, a three-decade-long tenancy period was identified. This was characterized by lower-than-average yields and holdings by the tenant families and rapid residential turnover based on a different tenant occupant at each five-year state and federal census interval. As seen above, the phase was marked archaeologically by a wide range of decorative ceramic patterns and a dearth of consumable items, such as patent medicines, suggesting the tenants had little extra disposable income to spend during a time when the price of consumer goods was dropping due to an increase in supply (Parkerson 1995:9–11).

Table 15.2 presents a timeline of ownership of the farm with the residents listed in the column to the right. Tenants from the period of 1855 to 1875 were tracked by tracing the route of the census enumerator along the roads on historical maps. The order of the names in the census often matches that of the names on contemporary landowner maps, with the exception of tenant entries. Often, the tenants were listed with no real estate value, or as noted on the state censuses, they rented

their homes. Agricultural schedules were found for two of the tenants. The “paper trail” left by the tenants, as with many of the lower class during the nineteenth century, was sparse. O’Donovan and Wurst (2002:75) state that this apparent lack of presence in the public record attests to their “peripheral status.”

Alvin Pratt was the first local owner, and farmed the land around and including the Pierce site. It is not known where he lived at this time since landowner maps postdate the Pratt farm. Pratt lost the farm through foreclosure in 1844. It was rapidly turned over to Rodney Sargent, a new resident from a successful Vermont farming family. Sargent lived in Stowerville, a hamlet just east of the site where Spruce Mill Brook supplied power to several mills and a cheese factory. In 1866, Sargent sold the 60.7-ha (150-ac) farm to Hiram and Elizabeth Wright, another Vermont farming family. The Wrights paid a mortgage to Sargent and eventually the latter retired to Westport on Lake Champlain to live out the rest of his life. The Wrights lived just west of the Pierce site until 1879, when the tenant farm was sold to carpenter and farmer Leslie Smith, who sold it shortly after to the Robertses in 1880.

From as early as 1850 through about 1880, at least five tenant farming families occupied the Pierce house. The 1860 and 1865 censuses listed three different men as farm laborers and boarders in the Sargent household, likely helping to operate the farm while Sargent turned his interest toward the growing hamlet and other tracts. The tenants consistently had lower agricultural statistics than the neighboring farms while the owners, Sargent and Wright, were consistently well above average (Table 15.3).

**Table 15.2.** Owners and Residents at the Pierce Site.

Owner	Years	Residents at Pierce Site
New York State Comptroller	?–1833	None.
John DeLano	1833–1835	None. Held for obligatory two-year period and subdivided.
Alvin Pratt	1835–1844	None.
Rodney Sargent	1844–1866	Henry Coolidge–1850 Charles Miller–1855 Russell Baker–1860 Albert Sibley–1865
Hiram and Elizabeth Wright	1866–1879	Caleb Reynolds–1870 Charles Beaudry–1875
Leslie Smith	1879–1880	Leslie Smith?
John and Weltha Roberts	1880–1899	John and Weltha Roberts
William and Alma Smith	1899–1904	William and Alma Smith
Alma Smith	1904–1908	Alma and Friend Smith
Albert Sargent	1908–1916	Alma and Friend Smith

Sources: New York State Department of Census 1855, 1865, 1875; U.S. Bureau of Census 1860, 1870.

**Table 15.3.** Sample Set of Owner and Occupant Agricultural Averages.

Enumeration Data	1850		1855			1860		
	Average	Sargent	Average	Sargent	Miller	Average	Sargent	Baker
\$ Farm	\$1,582.00	\$3,000.00	\$1,209.00	\$4,000.00	\$800.00	\$2,082.00	\$4,500.00	\$2,000.00
\$ Livestock	\$334.00	\$550.00	\$363.00	\$970.00	\$200.00	\$406.00	\$890.00	\$300.00
\$ Equipment	\$78.00	\$150.00	\$73.00	\$200.00	\$60.00	\$95.00	\$200.00	\$50.00
Wages paid	-	-	-	-	-	-	-	-
Wheat (bushels)	31	20	59	46	-	43	35	50
Oats (bushels)	101	175	69	100	50	127	200	70
Corn (bushels)	106	150	66	100	20	80	200	50
Potatoes (bushels)	247	500	140	240	100	143	200	30
Butter (pounds)	307	400	315	700	300	249	350	150
Hay (tons)	16	45	15	50	8	-	60	20
Honey and beeswax (pounds)	152	220	176	-	-	115	110	-
Poultry sold	-	-	\$7.00	\$2.00	\$4.00	-	-	-
Eggs sold	-	-	\$12.00	\$5.00	\$8.00	-	-	-
Value of Farm Products	-	-	-	-	-	-	-	-

Enumeration Data	1865		1870		1875		1880	
	Average	Sargent	Average	Wright	Average	Wright	Average	Smith
\$ Farm	\$775.00	\$4,000.00	\$2,238.00	\$6,000.00	\$3,946.00	\$6,000.00	\$1,378.00	\$2,500.00
\$ Livestock	\$268.00	\$310.00	\$668.00	\$900.00	\$2,508.00	\$786.00	\$331.00	\$400.00
\$ Equipment	\$61.00	\$200.00	\$143.00	\$200.00	\$905.00	\$150.00	\$70.00	\$150.00
Wages paid	-	-	\$158.00	\$300.00	-	-	\$30.00	\$40.00
Wheat (bushels)	14	4	33	30	38	18	12	-
Oats (bushels)	73	200	125	-	171	60	114	160
Corn (bushels)	61	25	99	150	85	60	65	25
Potatoes (bushels)	176	800	154	150	206	200	56	40
Butter (pounds)	236	400	600	800	628	600	313	350
Hay (tons)	13	40	27	70	24	-	-	24
Honey and beeswax (pounds)	64	56	-	-	-	-	90	-
Poultry sold	\$9.50	-	-	-	\$8.75	-	-	-
Eggs sold	\$4.00	-	-	-	\$12.63	\$30.00	-	-
Value of Farm Products	-	-	\$763.00	\$1,267.00	\$1,589.00	\$450.00	\$261.00	\$420.00

Sources: New York State Department of Census 1855, 1865, 1875; U.S. Bureau of Census 1860, 1870.

Census records for the tenants before and after their stay at the Pierce site show that the families very rarely made advances beyond tenancy. Even when tenants eventually owned their own land, the new situation was tenuous at best. Albert Sibley moved to Santa Barbara, California, with his brother in the 1870s. Russell Baker bought a farm in the highlands of North Elba, Essex County, a mountainous and more difficult tract near the Adirondack High Peaks. Caleb Reynolds died shortly after leaving the Pierce site; his wife later worked as a housekeeper for an affluent family in

neighboring Westport.

The documentary evidence shows the tenants in a difficult position, consistently below average in agricultural production and constantly on the move. Tenants typically produced much of the same cultivars as the owners, just in smaller quantities. Also, the value of the tenants' equipment was much lower than that of the owners, suggesting that there was some sharing or renting of equipment from the landlord. Sargent and Wright may even have dictated what the tenant farmers should grow based on market demand and a systematic

approach to crop rotation. During this time, the owners continued to amass land and enjoyed above-average yields from their own farms, as well as any rent collected from the tenants. The tenants met a varied number of fates and very few seem to have met with success.

### THE ROBERTS-SMITH PERIOD: 1880–1916

In 1880, a new period of owner-occupancy began when John and Weltha Roberts of Elizabethtown purchased the farm from Lesley Smith. John Roberts was born in 1846 next door to the Pierce site on Alex Roberts's farm. By 1870, when John appeared in the census for the first time as a farmer, his father had died and left the farm to Sally, John's mother (U.S. Census 1870). By 1880, John Roberts worked as county clerk and had four children at home in the Village of Elizabethtown, just south of Lewis (U.S. Census 1880). Reflecting the peak in regional agriculture during this time, the Pierce farmstead reached its greatest size in about five years, shortly after the Robertses purchased the Pierce farm in 1880. In 1885 and 1886, Roberts acquired an additional 104 ha (257 ac), bringing the total contiguous area to 165 ha (407 ac). This included his childhood home, probably after his mother had passed away or became too old to care for the farm.

Roberts's ties to the Pierce farm reached back into the earlier historical tenant period. John's father had passed away by the time the boy was 14 years old. When he returned in 1880, Roberts likely relied on his own knowledge and on trade journals to keep up with changing trends and technologies in farming. The Roberts family may have even come to regard the Pierce house as an eyesore over the years, especially during its tenant period. The Pierce house would have been visible from the Roberts house, especially once the land was cleared and tilled. The Robertses departed from the farm in 1899. Around this time, John's wife, Weltha, disappears from public records, including the deed conveying the land to the new owners. If she died, the loss may have contributed to Roberts's exit, along with the migration of his children to other farms and occupations. By 1910, his son, John S., Jr., ran one of the larger hotels in Elizabethtown along with his older brother Julius. Also, the move to the farm from the village may have been occasioned by Sally Roberts's death or convalescence. It is highly likely that Roberts took in his mother after buying the farm in 1880.

William Smith purchased 101 ha (250 ac) of the 407-acre farm from Roberts in 1899. William Smith, born in 1840 in Essex County to Vermont-born parents, married Alma Pratt in the 1860s and by 1870 he was farming his own land elsewhere in Lewis (U.S. Census 1860, 1870).

At this point, William was 29 years old and had one daughter, Sylvia, 3 years old. By 1892, the family grew to seven children between the ages of 2 and 24 (U.S. Census 1892). In 1900, 91 ha (225 ac) of the 250-acre farm were cleared and seeded, and the county assessed the farm at around \$1,600. (U.S. Census 1900). Friend, William's oldest son, bought his own farm from Roberts in 1903, part of the original parcel from the 1830s. In hindsight, this may have been a terrible mistake.

William transferred the property to his wife Alma in December 1903 and died in February 1904 at age 64. Friend continued to support his mother while operating his own farm; the rest of the Smith children left home in the coming years. By 1908, the burden had become such that the Smiths sold the farm to Elbert Sargent, grandson of Rodney Sargent, for \$3,000. (ECCO 1908). They continued to live at the farm until at least 1916; Alma died the next year and by 1920, Friend had married and moved elsewhere in the town (U.S. Census 1920).

### THE LANDSCAPE ARCHAEOLOGY OF THE AGRARIAN MYTH

The analysis of the landscape as material culture focused on the house and house lot as archaeological manifestations of the so-called "Agrarian Myth." The tightly constricted confines of the tenant farm were a reminder of the difficulty of tenancy during the nineteenth century in a rapidly changing agricultural society. The owner-occupants brought about large-scale changes to open up a more comfortable domestic sphere as well as to make an overt mark on the landscape of socio-economic position.

Reconciling the apparent age of the house with the dates provided by the archaeological assemblage was difficult at first. However, architectural analysis of structural and decorative elements in the house illuminated a plausible history of the house and its relocation to the site ca. 1850. Also, construction debris in both the horizontal (spatial) and vertical (temporal) dimensions of the site did not support on-site construction of the front wing of the house. Ample construction debris from the rear addition and the garage was found, however, in the appropriate contexts.

The diagnostic features of the front wing of the house span several decades from about 1790 to 1830. From a distance, the house resembles a typical five-bay Federal-style structure typical of the beginning of the nineteenth century. The house had flanking, detached sidelights, common ca. 1780–1820. The plan and proportions of the house match other examples from ca. 1810–1830. The framing members and lath were cut with a reciprocating saw, rather than a circular saw, which was widely

used by 1850. Also, several decorative elements on the inside of the house were common during the late eighteenth and early nineteenth centuries, such as a bead-edge board enclosure around the top plate on the second floor and cornices and cornice returns on the first floor (Wheeler 2007).

One specific piece of evidence was very supportive of the relocation theory over on-site construction. The original wing had provision for a kitchen fireplace. Related features would consist, for example, of a large brick hearth and chimney in the basement with a substantial architectural signature in the framing and foundation. By 1850, when it is postulated that the house was moved, a wood or coal stove would have been used (Wheeler 2007), so no provision would need to be made for this kitchen fireplace in the new foundation. After it was moved, the house may have had a very small kitchen wing built onto the back, which would have sat within the footprint of the later addition.

Farmers moved houses, barns, and outbuildings from the colonial period until the 1940s at an astounding rate (Hubka 1984:140). Very little has been written about moving structures during the nineteenth century, except for the infrequent journal entry, which is a statement of how widely accepted and common the activity was during this period (Faulkner 2004:57; Hubka 1984:139). The local community gathered to move houses on log skids, usually over frozen ground, to their new locations (Faulkner 2004:57–58). Since houses during this period rested on their foundations rather than being secured, picking up the house with screw jacks and support timbers was relatively quick and easy (Hubka 1984:140). Hubka states that this phenomenon seemed to be unique to New England and was accessible and affordable. As Sargent was an increasingly successful Vermont farmer in Essex County, moving the Pierce house would have been well within the means of him and his family. This assumes that the farm owners wanted to provide just enough of the basic needs for tenants, rather than building a new up-to-date house.

Faulkner posits two possible archaeological signatures of moved houses. For sites where the moved house is still standing, he states that there may be obvious discontinuities between the apparent age of the house and the age of the artifact assemblage. At the Pierce site, the house appeared to have been built ca. 1790–1830, but the artifact assemblage appeared to postdate that by nearly two decades. The ceramic assemblage, especially, confirmed that notion with its nearly complete absence of pearlware and no creamware, ware types contemporary with the house type. Architectural artifacts were also much less common in deposits dating to the first occupation of the site as opposed to the ground surface surrounding the back addition, where wire nails and

window glass were very common.

Some of the signatures of transition seen in the landscape were very simple when interpreted within the framework of the historical background of the site. It was suggested above that the house was moved to the site ca. 1850 by Sargent, maybe from his own house lot once the new Sargent manse was built. The house was placed very close to the road at a time when houses were increasingly being built farther away. It was also oriented to face the road, or northwest, with no provision for a sheltered dooryard, which Hubka (1984:116) cites as a major consideration when planning a farmstead site. Reusing the old house with no updates, with the possible exception of a small rear kitchen wing, was not in keeping with the growing sentiment among farmers, especially in New England, toward aesthetic considerations in the house lot and the home (Hubka 1984:168; McMurry 1988:7–8).

Manifestations of the transition from tenant to owner occupation at the Pierce site were seen in alterations to the house and indirectly through some of the outbuilding construction. One of the largest markers of this shift was the construction of a large addition ca. 1880 in place of the former kitchen wing. Minor details on the inside of the ca. 1880 addition and original wing included an updated Queen Anne-style newel post, matching door hardware, and new paneled doors in the addition made to match the outdated doors in the original wing. Scroll-sawed porch brackets and columns were installed on the front of the house. When the addition was joined with the original sill, structural members from the original wing were removed and reused in the construction of the workshop portion of the garage. All of these features attested to the visible changes to the house and lot when Roberts took over as the owner and occupant.

The localized landscape of the domestic house lot—the front yard, backyard, and dooryard—bore subtle markers of both the tenant and owner occupancy periods. Archaeological evidence shows that the house had a very small backyard when the tenants lived there, and that the residents threw trash into the first few rows of the plowed field (Figure 15.4). No agricultural space was wasted and the plow worked up against the back door of the house as well as in the front yard. In several of the excavation units, both in the front yard and the dooryard, artifacts from the earliest strata were found in plow furrows. One unit in the front yard had artifacts in a treebole, likely from an orchard tree. At some point during the tenant period, the rear edge of the backyard was pushed away from the house to allow the construction of a small privy and the carriage-shed half of the workshop. No evidence of a privy was found for the early phase of tenancy. The house and dooryard offered very little shelter during the winter months.

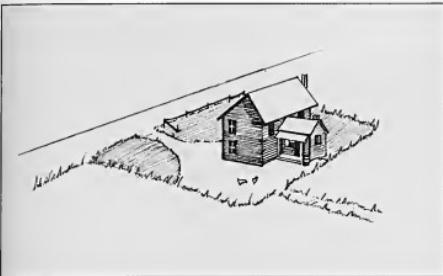


Figure 15.4. Representative drawing of the Pierce site, ca. 1850–1880.

Differences in class and ownership of the lot resulted in different patterns of how the house lot was used. The options open to the tenants were limited and the niceties of a formalized, tidy yard were not a reality when every acre counted. On the other hand, when the house was occupied by the new owners in 1880, the changes to the house and the yard were clear symbols of change and prosperity on the part of the Roberts family.

One marker artifact of the transitional landscape between tenants and the owner was locally produced redware. Analysis of the redware in the collection and its location in the yard suggests that the ceramic assemblages are more of a reflection of the different groups at the site rather than the natural temporal progression of ceramic consumerism. The location of the Town of Lewis places it away from major transportation routes (i.e., Champlain Canal) and trade centers but near eastern New York's redware production centers. Thus, it is not surprising that archaeological sites in this part of the state largely feature redware as the preferred utilitarian ware rather than yellowware or Albany-, Troy-, or Vermont-produced stoneware. Redware could be used for anything from mugs, pitchers, and plates to bowls, milkpans, and baking dishes. This ware began to fall out of favor once the glaze's lead content became a public health issue (Ketchum 1991:8). The redware industry lasted until the 1840s in Vermont, when the Bennington stoneware potters pushed them out of business (Ketchum 1991:59–60). Some of these potters moved west into eastern and northern New York. Ketchum describes New York redware potters as conservative in style and form. Vessels were covered in a clear lead glaze or tinted to produce a single shade of green, black, or white (Ketchum 1991:72). Glazes on the redware fragments were consistently uniform without decoration or mottling.

Redware is most commonly associated with dairy

production, especially butter making. The historical record reveals that tenants on the Pierce farm consistently produced butter below the average of neighboring farms (Table 15.3). A part of this product likely stayed in the house and the rest was sold at market. Conversely, the owners consistently had above-average butter production as compared with tenants when both appeared in the agricultural census. Sargent, for example, was a top butter producer and may have been involved with the cheese factory in Stowersville. The only other resident farmer listed in the census was Leslie Smith in 1880, shortly before the Robertses purchased the farm. The Leslie Smiths were producing butter just above average, with the third largest dairy herd in the sample set. In each year, there were only two or three farms within the sample set not producing butter.

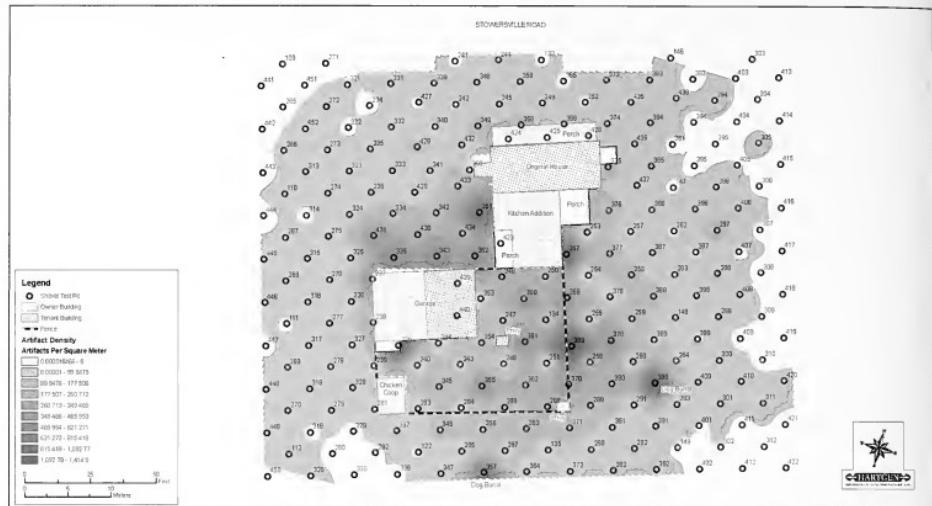
The majority of the redware assemblage from the Pierce site came from stratigraphically sealed sheet midden deposits. In the case of redware, the small fragments common with a trampled dooryard make analysis of the assemblage all the more difficult. Since redware was locally produced in several different factories in eastern New York, there was no standardization of the product. This comes into play when considering the glaze and attempting to determine the minimum number of vessels from the redware set. Based on existing examples, a mug may have a glaze set for the body and different colors for the rim and base. There were at least six different glaze colors at the Pierce site, as well as other vessels that appeared to be unglazed. Due partly to the small size of the fragments, none of the artifacts cross-mended between contexts.

Redware at the Pierce site was limited to utilitarian pieces in the set of vessels that could be identified. This included several milkpans and crocks and one green-glazed redware pitcher, identified only by its handle and terminal (Table 15.4). Artifact density maps were produced to show the horizontal patterning of several different artifact groups and to aid in defining the tenant dooryard. Figure 15.5 shows the artifact assemblage for all classes from the shovel test pits for the site. The

Table 15.4. Redware Vessel Forms.

Redware Vessel Form	TNF*	MNV*
Milkpan	6	4
Pitcher	9	4
Storage	3	2
Bowl	10	6
Hollowware	18	9
Unidentified	911	13

\*TNF = total number of fragments; MNV = minimum number of vessels



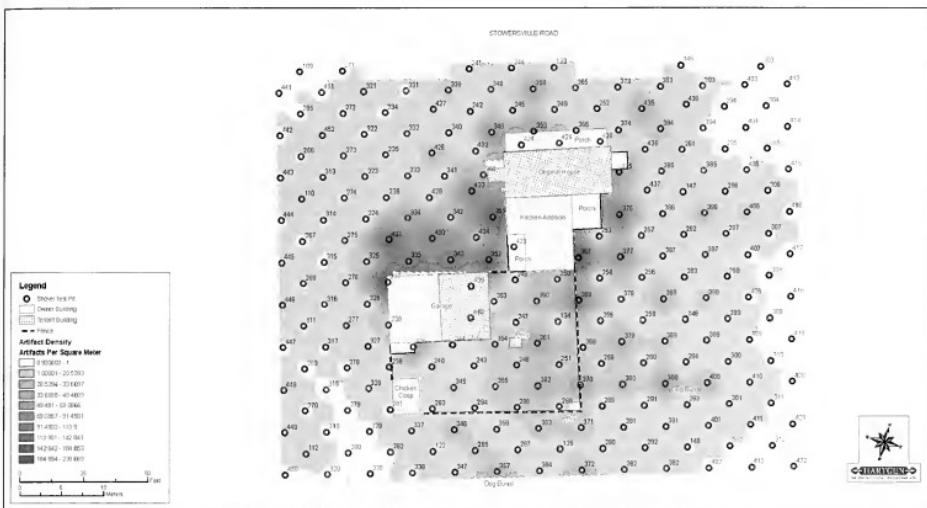


Figure 15.6. Artifact density map of the Pierce site, kitchen/domestic artifact classes.

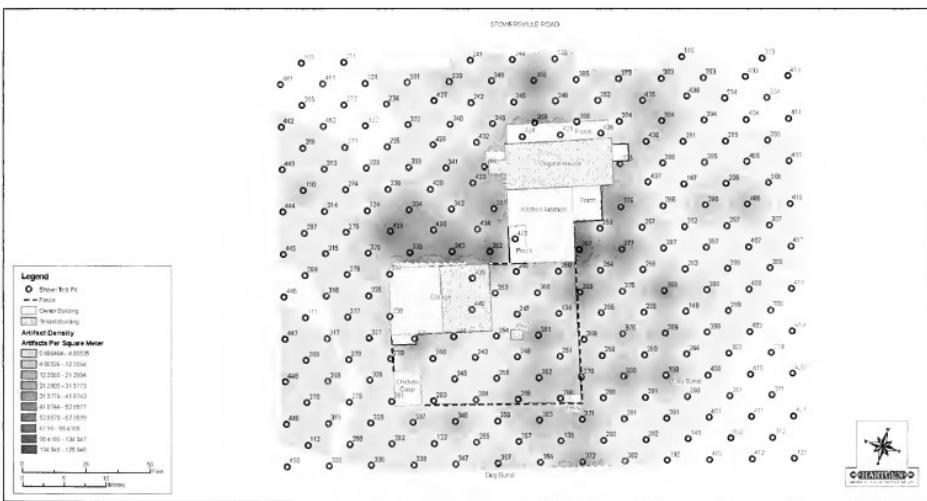


Figure 15.7. Artifact density map of the Pierce site, redware vessels.



**Figure 15.8.** Representational drawing of the Pierce site, ca. 1880–1916.

although an earlier structure likely predated the existing one. When viewing the structures in the house lot in plan, each was arranged so as to form a square courtyard. The rear wall of the addition lined up with the front wall of the garage. The southwest wall of the garage was parallel with the same wall of the chicken coop. The southeast wall was aligned with the same wall of the privy and around the privy back again to the east corner of the addition.

The backyard was likely fenced after 1880. Fence gates were probably located at the northeast side, perhaps to access an orchard, at the kitchen porch, and between the coop and garage. Access to the chicken coop was gained by the backyard through the northwest door of the structure, and the new addition of a back door to the rear of the workshop provided access to a steam-driven sawmill beyond the yard at Spruce Mill Brook and the chicken coop. This orderly rendering of the backyard is in line with popular house-keeping journals of the day, which extolled the virtue of a neat yard with an “aspect” (Allen 1852:33–34). Hubka (1984:198) describes this as a marriage of convenience and beauty that was a key in many New England farms at the time. The backyard was not a lawn in the modern sense, but may have featured a garden as well as space for domestic activities, including laundering, poultry, and butter production. A formal backyard was likely mowed down once or twice in a season, leaving the yard a “rough meadow” the rest of the year (Schlereth 1991:135).

## DISCUSSION: TENANCY AND FARMERS WITHOUT FARMS

Although there was little documentary information about the families on the Pierce farm while they lived there, the archaeology, especially considering the landscape as material culture, revealed some of the dis-

comforts and hardships of life as a tenant farmer. Contemporaneous literature and the work of historical scholars complement the picture of what life was like for the typical Northern tenant farmer. The reality of tenant farms in America is confused by apologetic and contrite descriptions of what some perceived as a quaint and noble tradition (Atack 1989; O'Donovan and Wurst 2002; Winters 1978). Some apologists state that farming as tenant was a necessary step on the way to becoming a self-respecting and respected progressive farmer (Hedrick 1933:353). In the re-examination of the realities of that institution, archaeologists and historians alike have found that, just as with urban dwellers in flats and apartments, renting a farm was a much different economic situation than owning (Wurst 1993, 1999). Tenant farming was not necessarily a natural step along the way to owning a farm, but was actually a very difficult social situation to transcend.

The archaeology of historical farmsteads in the Northeast has contributed to our understanding of class relations in what has idyllically been thought of as a classless society of equality and simplicity. Wurst's (1993) study of the community of Upper Lisle near Binghamton showed that not only was there clear stratification of rural farming society in New York State, there was also a contingent of that population who consistently owned no land and subsisted on their own labor and wages. These people moved periodically, left little evidence of their passing, and never progressed beyond tenant farming or wage labor (O'Donovan and Wurst 2002:75; Wurst 1993). This group of tenant farmers was represented at the Pierce site and accounted for most of the cultural materials found at the site.

In ascending what historical scholars have termed the Agricultural Ladder, the first rung was very often working on the father's farm (Atack 1989; Winters 1978). After that, depending on the means of the given family, a young man could move laterally to renting a farm to build capital or vertically when the father either passed on the family farm or sold him a parcel. Hedrick (1933:353) stated that the tenant was “ranked in all respects with the landholder.” Any social stratification was seen as a temporary condition, “based on individual attributes or failings rather than being inherent in the structure of the social relations” (O'Donovan and Wurst 2002:74).

Wurst (1993, 1999), however, has shown that it was actually very difficult to move up the ladder, describing the agricultural ladder as the “Agrarian Myth.” Part of this challenge was derived from the cost exacted by the owner. Typically, if the tenant provided seed, tools, and stock, the owner required half the harvest as a lease settlement. If the owner provided the above, then the tenant paid two-thirds of his harvest to the owner (Hedrick

1933:354). Historical documentation of the tenants at the Pierce site showed that the families often moved sideways, but very rarely did they ascend to ownership. The archaeological data from the site showed minor gains, mostly when the small workshop was built and the privy was moved farther from the back of the house. The landscape of the tenant family continued to be confined and controlled, with domestic activity areas mingling with the surrounding plowed fields and orchards.

Some primary sources suggest that tenant farmers were looked down on. Allen cautions against providing too richly for tenant farmers.

Owners of *rented* farms should reflect, too, that expensive houses on their estates entail expensive repairs, and that continually. Many tenants are careless of highly-finished houses. Not early accustomed to them, they misappropriate, perhaps, the best rooms in the house, and pay little attention to the purposes for which the owner designed them, or to the *manner* of using them. It is therefore a total waste of money to build a house on a tenant estate anything beyond the mere comfortable wants of the family occupying it, and to furnish the room necessary for the accommodation of the crops, stock, and farm furniture, in the barns and other out-buildings—all in a cheap, tidy, yet substantial way. (Allen 1852:82–83, emphasis in original)

Following this philosophy, at the Pierce site an old house, perhaps decades outdated, was moved to the field when the owner built a new house for his growing family. The money and time invested in moving the house in the winter over the frozen ground when labor was in great supply was far less expensive than building a new house. There was little security to be gained from providing too well for tenants (Mascia 1994:50).

Allen had disparaging comments about yard space on tenant farms as well.

So, too, with the grounds for domestic purposes around the house. A kitchen garden, sufficient to grow the family vegetables—a few plain fruits—a *posey* bed or two for the girls—and the story is told. Give a larger space for these things—anything indeed, for elegance—and ten to one, the plow is introduced, a corn or potato patch is *set out*, field culture is adopted, and your choice grounds are torn up, defaced, and sacrificed to the commonest uses. (Allen 1852:83, emphasis in original)

If tenants were to be afforded very little in the way of yard space, we could expect to see a different pattern of activity areas, landscape use, and refuse disposal compared with their more comfortable, landed neighbors.

In some instances, tenants may have been placed in a discouraging situation where no hope for personal betterment could be had. Hedrick quoted the Reverend John Taylor in 1802 on tenant farmers in Boonville, Oneida County, New York.

The Americans can never flourish when on leased lands—they have too much enterprise to work for others, or to remain tenants—and where they are under the necessity of living on such lands, I find that they are greatly depressed in mind, and are losing their animation. (Taylor 1802 in Hedrick 1933:354)

The upkeep of a “nice” domestic space in the rear yard with enclosed yards and maintained grounds may have been the last thing on the mind of a struggling tenant farmer family. Although tenants had some exposure to the agricultural and domestic literature of the day, there was little incentive for the average tenant family to aesthetically improve their lot (Mascia 1994:50, 53). On the other hand, formalizing the backyard seemed to be a top priority to the Roberts family.

Another source of contradictory depictions of tenant farmers comes from Morris (1864), who quotes letters from progressive farmers to some of the leading agricultural journals of the day. One farmer, writing to the editor of the Albany *Country Gentleman*, had encouraging advice for the young man moving through the ranks as a tenant farmer. Farmer F. seemed to suggest that the tenancy stage was indeed part of the natural progression in rural society. “I would impress on the minds of all . . . the greatest mistake they make in thinking that, because they work another man’s farm, they cannot afford to farm well” (Morris 1864:61). The farmer also encourages land-owning farmers to let out their farms or portions of them to relieve the burden. The farmer also, idyllically, looks to England as a shining example of how tenancy under the right situation can work for both the landowner and the tenant. In England, “it is said that many tenant farmers do so well, and are so well satisfied, that they prefer remaining tenant farmers,” regardless of how much money they were to save for their own farm (Morris 1864:62). This statement, obviously, does not take into account the centuries of landowner-tenant struggle in the highly stratified English society, but it belies the sense that some progressive farmers had of the social and economic value of renting a farm.

There is very little said about the transition from tenant-to-owner tenure on a farm. Most sources complain of the deplorable state of the farm when the tenants leave (Allen 1854; Morris 1864). The Spencer-Pierce-Little (SPL) Site was a farmstead in Essex County, Massachusetts, that had been occupied from about 1690

through the 1980s (Mascia 1994, 1996). One part of the site's history involved about 30 years of tenancy in the early nineteenth century, followed by the purchase of the farm by the last tenant in 1861. This change in ownership was accompanied by broad changes to the landscape, involving removal of outdated buildings and features and a formalization of domestic and other work spaces.

One of Mascia's theories concerning the development of the SPL site was that once the tenants acquired the property, they had a newfound freedom to effect changes, perhaps the changes that they had always been promised would occur but could not make as tenants. In a sense, their "consumer choice" was not in ceramics or pharmaceuticals, but in improving the grounds (Mascia 1994:87). Archaeological evidence from the site suggests that money was spent on landscape improvements and other physical upgrades, rather than expensive new tableware and teaware, which is how archaeologists often measure improving economic circumstances (Mascia 1994:304–305). Further, Mascia (1996:147) states, "the position of either tenant or owner should have direct archaeological correlates because that position will directly demonstrate his or her ability to alter the landscape and purchase consumer goods . . . The tenant who becomes an owner will be more likely to first invest in changes and improvements to the farm that provides his or her livelihood and only later purchase various consumer items."

At SPL, the tenant-turned-owner Edward Little first updated the kitchen by moving the scullery indoors and installing a cistern that would pump water directly into a kitchen sink. After this, the kitchen yard was filled and leveled and ceased to be a primary work space for domestic activities (Mascia 1994:277; 1996:167). The other large-scale change was the formalization of the rear yard, in much the same manner as at the Pierce site. At SPL, the formerly generalized utilitarian space of the rear yard was modified by moving the privy and chicken coop. This area ceased to be a general work space and became more formalized in a process of "well-planned changes that defined, through the 'presentation' of the farm, a modern, tidy, and thrifty farmer" (Mascia 1994:295–297). Little constructed fences or windbreaks in association with middens containing utilitarian items and industrial artifacts, suggesting a direct correlation between the new activity areas and the aesthetic improvements to the yard (Mascia 1996:168). To express the changes in ownership and to inform his neighbors of a new phase in the farm's history, Little moved the "domestic" outbuildings (privy, chicken coop) to the rear of the house and eliminated domestic work from the outdoors (Mascia 1994:299).

## CONCLUSION

The analysis of the Pierce site in terms of its landscape and transition from tenant-to-owner occupancy illuminates class differences that fostered very different living conditions and aesthetics at this Adirondack farmstead. The landscape created around the domestic center is a reflection of the image put forth by the inhabitants as well as of the economic realities faced by the family. Often, landscape and built environment are either glossed over or absent altogether from analysis of the archaeological record. Material culture is often thought to be the prime territory for expression of class relations (Delle 1999:136). However, a study of landscape as an element of material culture offers a new and enriching avenue of research, as it often forms the "arenas in which people negotiate class relations" (Delle 1999:136). Northeastern farming families, when they could, shaped the domestic landscape to present their own social standing and image. This is seen in many facets of farm-building construction and orientation, including the orientation of structures during the nineteenth century toward the road (Hubka 1984), the reorganization of kitchen and domestic work spaces in a more efficient and personalized manner (McMurtry 1988), and formalizing the outdoor activity areas and landscape elements to present an image of progressiveness and propriety (Mascia 1994).

The Pierce house was moved during the 1850s as the population of the town was increasing steadily and agriculture was becoming more integrated into a capitalist market. The house was placed very close to the road in a small yard cut out of the surrounding hay, wheat, and oat fields. Stowersville Road led from the Village of Lewis east to Westport on Lake Champlain and through the industrial hamlet. This would have been a very busy road ferrying farm products to Westport for shipment and saleable goods into the village. Thus, the Pierce site was in a position to be highly visible between the two villages. For much of the period from ca. 1850 until 1880, the tenants were limited to a very small yard space around the house. All domestic activities were conducted just south of the small attached kitchen in a very visible dooryard. During the winter, dairying was moved to the east side of the kitchen addition to provide shelter from the northwest winds. Evidence of domestic work spaces and orchard trees in the front yard and the absence of a privy near the house lead to interesting conceptions about the house's relation to the farm. Without a privy in the yard, contents of chamberpots may have been spilled out into the edge of the plowed field, or the residents might have crossed the street to the barn for their necessary.

This suggests that the farmyard and domestic space had very few real boundaries besides the road itself. The domestic workings of the house were intimately tied to that of the farm, and what few chores could be accomplished in the small dooryard were done so in full view of travelers on Stowersville Road.

Tenants at the Pierce site were used to a hardscrabble existence and most of the money earned from produce and dairy likely went first to the landowner. Changes to the yard and their immediate landscape were either well out of their economic reach, or discouraged by the landowner (cf. Mascia 1994:50). Perceptions of the small farm by passers-by must have identified the house and yard with lower-class residents. This was not the image the tenants chose for themselves. Instead, they expressed their personal image and values through other material culture, like the transfer-printed dinnerware and the nationalist tobacco pipes.

The multidisciplinary approach to studying the landscape archaeology of the Pierce site through the tenant-owner transition offers a personalized look into how one family negotiated their class relationship with respect to the previous tenants. When the Roberts family transformed the tenant farm into a progressive domestic haven, they made stark statements about their position in the community. As a boy growing up on his family farm, John Roberts likely rode along Stowersville Road to Westport often. His family continued to rank above average in farm production throughout the 1850s and 1860s. The family may have had a view of the tenant house from their back windows across the fields to the east. The Roberts family may have even helped to move the house to its new location. As a characteristic feature on the landscape of the community, the perception of the family, the house, and the farmstead surely became a factor in the young Roberts's developing aesthetic as he matured.

John Roberts spent much of his young adulthood in the Village of Elizabethtown, which served as the nearest thing to an urban center in rural Essex County. Trains, tourism, and the peak of timber and ore industries in the mountains brought thousands of people from all walks of life to and through the village. As county clerk, Roberts met many of these people and became exposed to a wider set of contemporaneous values than perhaps the tenants at the Pierce site. He was also likely exposed to the agricultural literature of the day and embraced the progressive ideals of farming.

Roberts presented a clear display of status and change through the changes at the house. Moving domestic activities into a formalized backyard was in keeping with the popular domestic aesthetic of the day. Updating the house with a porch presented an inviting feature to the façade. Within the house, attention was

paid to details such as matching door hardware and doors. During this time, Roberts purchased over 162 ha (400 ac) of land and added a large addition to the back of the house. The changes to the landscape at the Pierce site were informed by the contemporary aesthetic embraced by Roberts, but also by sentiment, as the house was likely considered an eyesore by members of the Lewis community, including the Roberts family. Transforming the tenant farm into a progressive domestic house lot was likely a long-awaited transition.

Agriculture in the Northeast changed radically during the time period represented by the Pierce site. Much of the industry and produce typically undertaken at the home moved out into consolidated factories or to the farmyard. Capitalist markets gradually replaced subsistence-surplus economies. The landscape of the farm and house lot also changed during this time from an open area of work and activity to a more orderly and formalized domestic space. In fact, the entire landscape of agriculture in Essex County changed. This area is today known better for its hiking, skiing, and wilderness rather than for its nineteenth-century agrarian society. The study of the transition from tenant to owner occupancy on this farm shows how class was negotiated through the immediate domestic landscape.

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## A LOCAL INDUSTRY REFLECTS A LOCAL COMMUNITY— The Watts Blacksmith Shop

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Few businesses reflected the nature of a rural nineteenth-century community as completely as the local blacksmith shop. Most metal tools and metal components were, in the early- to mid-nineteenth century, handmade within the local community. Even as factory-made iron goods replaced those made locally, all iron items needing repair still went to the local blacksmith. As a result, the blacksmith and his assistants had a hand in every local economic activity at a very basic level, from kitchen to mill, and archaeological evidence of their work directly reflects the needs of their community as a whole.

At the Parishville Center Blacksmith Shop Site, where blacksmith Robert Watts worked from the 1870s until his death in 1904, this evidence was found in the remains of the well-preserved dirt floor. An earthen floor reflects every activity routinely performed on it, both in the arrangement of activity areas and in the small debris driven into it by foot traffic. The movements of the smith and his assistants wear shallow walkways in the floor, reflecting the frequency of movements between important workstations, and the debris trodden into the floor (or lack thereof) can tell us what kinds of activities took place in each area. This is true of earthen smithy floors regardless of the temporal or geographical environment in which they were formed.

### COUNTRY BLACKSMITHING IN THE NINETEENTH CENTURY

At the end of the eighteenth century, the role of the country blacksmith was essentially unchanged from centuries past. He was literally a jack of all trades. Everyone depended upon the products of his work for farming, logging, and hunting to transportation, maintenance of mill machinery, household chores, and the building of houses. Illustrating the essential nature of the smith's place in society, Hogg recounts a British folktale about a king who challenged all the artisans of his kingdom to compete in a competition for a prize

honoring the finest product. The blacksmith, outraged that the prize was awarded to a tailor put down his tools and refused to work, bringing all production in the kingdom to a halt. The king was forced to admit that the prize should have gone to the blacksmith, without whom none of the other artisans could have produced their work. Thus, the motto of the Ancient Order of Smiths in London: "By Hammer and Hand all Arts Do Stand" (Hogg 1964).

In an urban setting there were often several smiths within a few blocks of each other, each having his own specialization. The large population base not only supported this but demanded it. Most of them, even those who specialized, derived much of their livelihood from shoeing livestock (Lasansky 1980:24). Some who preferred this craft became full-time farriers and de facto veterinarians as well. Some of the more skilled smiths might specialize in complex work such as locksmithing or gunsmithing, while less skilled ones might take up the production of nails, a job that could be performed by minimally skilled labor and was sometimes even pursued as a cottage industry at the kitchen fireplaces of individual homes (Richard H. Hart, quoted in Watson 1990:12).

The most common form of specialization in a rural context was the manufacture and repair of vehicles for work, transportation, and recreation. Often, as may be the case for the Parishville Center smithy, this business flourished and expanded into a second structure devoted entirely to the manufacture of wagons, carriages, sledges, and sleighs. As a result of this, and because of the need for wooden handles on tools, smiths also had to be woodworkers. In fact, when building wagons and carriages, most of the work was with wood while smithing might only take the form of manufacturing and repairing iron hardware for wooden vehicles (Sturt 1993).

A smith in a rural context generally could not afford to specialize as much as a smith in an urban context might. There was simply not a dense enough or varied enough customer base. He had to be able to provide or

repair every iron product needed by the community, from farm equipment and vehicles to firearms, architectural hardware, and household tools, while the shoeing of livestock remained his stock-in-trade. Because of his knowledge of domestic animals, he often had to serve as the local veterinarian as well. In her study of the account books of rural Pennsylvania smiths, Lasansky (1980:24) notes that even in the case of many specialized smiths, the shoeing of horses represented from one quarter to a half of all business. The bulk of their other work consisted not of manufacture but of mundane daily repairs of common items. The results of the investigations at the Parishville Center blacksmith shop reflect a similar situation.

The need for locally manufactured items decreased dramatically during the late nineteenth century because of the availability of cheaper factory-made products, but the basic importance of the blacksmith to his community continued until the rise of machine-driven equipment early in the twentieth century. Even then, as the insurance maps of the early twentieth century clearly show, many younger local smiths transitioned to the craft of mechanic while still performing their old roles. They simply learned to repair and maintain the new machine-powered vehicles and tractors in addition to the older horse-driven equipment. Some smiths, such as Harry Jaquis and George Bardo, continued working until as late as the 1950s or even 1960s, aided by fuel rationing during World War II that brought about a temporary revival of horse power (Bealer 1976; R. Riggs personal communication 2002; Wigginton 1979).

## BACKGROUND

Parishville Center is located on the edge of the Adirondack Park in St. Lawrence County, New York (Figure 16.1). Despite the remoteness of this location, the 1858 Rogerson Map of St. Lawrence County (Figure 16.2) shows the intersection of what is now State Route 72 with Ashton Road, Sinclair Road, and Parkhurst Brook as a small business center supporting a sawmill, a carpenter shop, a wagon or wheelwright shop, and a blacksmith shop. It is known from other sources (Beers and Beers 1865; U.S. Bureau of the Census 1850; Bresce and Forrest 1976:24) that a cooperage and general store were also present. Another sawmill, a brickyard, and a starch factory were located only a quarter-mile downstream.

This concentration of local industries was short-lived. They were gone by the end of the nineteenth century, driven out of business by the increasing availability of cheaper, mass-produced products. By the late twentieth century, there was little obvious evidence that they had ever existed, and only residences remained. Archaeological investigation centered on the Parishville Center blacksmith shop has enabled us to better understand business activities that once made this intersection the focal point of the community.

In 1850, the blacksmith shop was operated by Charles Annis, with Amos Culver as an assistant. By the 1860s, two wheelwrights were also living in the area, probably employed at the wagon shop. Their operation may have been, as was often the case, an extension of the black-

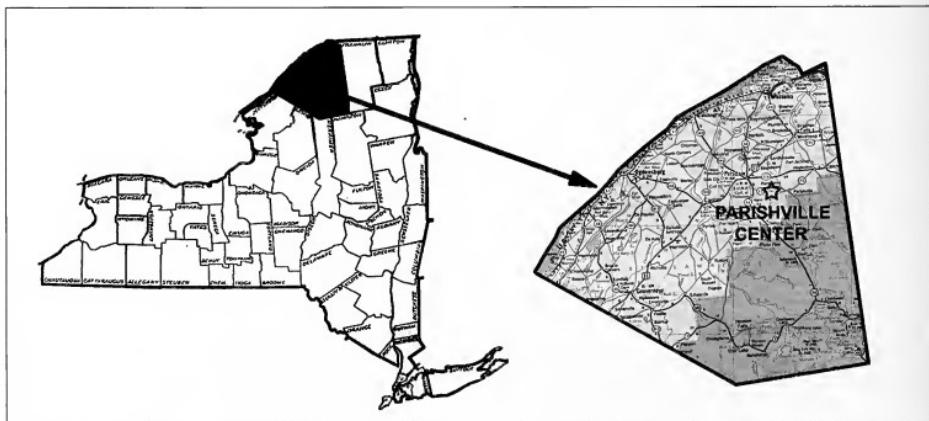


Figure 16.1. Location of Parishville Center.

smith's business (N.Y. Census 1865; U.S. Bureau of the Census 1850, 1860). By 1870, Henry Burwell was the smith, assisted by Robert Watts who, by 1880, had taken over the smithy himself. At that point, the U.S. Census no longer listed the other businesses (U.S. Bureau of the Census 1870, 1880).

By 1900 there is no mention of a blacksmith at this location either, and the last operator, Robert Watts, passed away in 1904 (R. Riggs personal communication 2002). Indeed, the 1908 U.S.G.S. map of Potsdam quadrangle shows only the store and four residences remaining near the intersection. The wagon shop, blacksmith shop, sawmill, carpenter shop, and cooperage had all disappeared (U.S. Bureau of the Census 1880, 1900; U.S. Geological Survey 1908).

When it was determined by the New York State Department of Transportation that the intersection needed to be reconstructed for safety reasons, an archaeological reconnaissance survey was performed by Hartgen Archeological Associates (Raemsch and Blair 1998) to identify any archaeological resources that might be affected. Archaeologists were able to determine approximate locations of these nineteenth-century businesses. A site examination excavation was subsequently performed on the Parishville Center Blacksmith Shop site (Raemsch, Blair and Luscier 1999), which deemed it eligible for the National Register and recom-

mended that additional site examination work be performed because of changes in the construction plans. The additional site examination work and data recovery excavations were performed by the New York State Museum Cultural Resource Survey in 2004. The project area included the entire area of the blacksmith and wheelwright shops and a portion of the area behind them. The artifacts collected and the cultural features recorded allowed analysis of the layout of the smithy and the kinds of work done there in response to the needs of the community.

## THE WORK OF THE WATTS BLACKSMITH SHOP AT PARISHVILLE CENTER

Although in many ways the Watts blacksmith shop was a typical example of a rural nineteenth-century smithy, what sets it apart from similar operations in less isolated parts of the state is its evident dependence upon local resources. For instance, while coal and clinker were present on the site, they were not particularly abundant. The remains of the fuel bins in this smithy contained only charcoal. Charcoal was apparently the primary fuel for Watts's forge even into the beginning of the twentieth century, long after most shops in America had switched to coal because it burned longer and hotter. In Parishville Center, while coal would have been available, it would have been relatively expensive because of the community's remote location. Charcoal, on the other hand, was cheap and easy to get because it was locally available from the seemingly endless forests in the nearby Adirondack wilderness. Lee Tippett, a Georgia blacksmith who lived and worked in a similarly remote location during the mid-twentieth century, noted that his limited access to coal made charcoal the primary fuel even in his time. Coal was preferred, but it was expensive and only intermittently available. He used coal when he could get it but used charcoal at all other times (Wigginton 1979:124).

The bricks used in the hearth of the forge were also locally obtained. They were the same type found on the site of the nineteenth-century brickyard only one-quarter mile downstream from the smithy. Although these bricks have not undergone trace analysis, it seems very unlikely that they came from any other source. Even if they did, it was most likely a source in Parishville. Several other brickyards operated along the St. Regis River within two miles of the site.

Most striking was the scarcity of iron scrap. No scrap of any size was found on the site, only small pieces that had been trodden into the floor or left as too small or otherwise unsuited for recycling. This fact stands out because in most smithies, the smith collected large



**Figure 16.2.** Parishville Center as it appeared on the 1856 Rogerson Map of St. Lawrence County. J. Carey operated a general store in the northeast quadrant of the intersection, while R. Brown operated a cooperage (not shown) and possibly the carpenter shop in the northwest quadrant. The three structures adjoining Parkhurst Brook in the southeast quadrant are labeled "W.S." (wagon or wheelwright shop), "S.M." (sawmill) and "B.S.S." (blacksmith shop.)

amounts of scrap as cheap or free stock, recycling it as needed. Customers would trade in broken iron items and traveling ironmongers would stop in from time to time. Some shops looked like indoor junkyards because of the large amount of scrap. One smith noted that he would simply toss used horseshoes onto a pile and, by the time he sold it for scrap, it had amounted to 55 tons of iron (Watson 1990:150). This common practice of allowing scrap to collect is exemplified by the site of a contemporaneous rural shop excavated by the New York State Museum at Bemis Heights on the old Champlain Canal in Saratoga County (Dean 2010). The area beneath and behind what appears to have been a wooden four-legged forge was littered with so much scrap that it was impossible for the archaeologists to recover it all (Figure 16.3). By comparison, the virtual absence of scrap in Parishville Center is striking and highlights the scarcity of iron in that community.

As a result of this scarcity, the smiths at Parishville Center may even have been using local iron from an abandoned mine several miles to the east. It is known that Harry Jaquis, the smith who worked in the village of Parishville two miles to the east of Parishville Center, sometimes used local ore to make horseshoes (Bresee and Forrest 1976:12).

The kinds of identifiable objects represented in the Parishville Center collection provide not only a picture of the various kinds of work performed in the shop but also, by extension, its relationship to the local community and its businesses. Artifacts related to farming were relatively plentiful, as one would expect in a farming community. Horseshoes and nails, a hoe blade, and scythe or corn knife fragments were present, as were shoe bolts used to hold the iron "shoe" on a sledge runner, harrow or manure fork teeth, a plowshare tip, axe fragments, a singletree top plate, and chain fragments. Most of the horseshoes were for horses and mules like those used to pull plows and heavy wagon loads. Oxen, while present, do not appear to have been common in the community. Clearly the main activities in the shop, as Lasansky's (1980) study of blacksmith's day books would lead us to predict, were shoeing horses and mules and repairing the tools, conveyances, and architectural hardware of a farming community. This is the kind of work that requires a well-rounded smith. Indeed, several artifacts indicate that at least one of the smiths who worked there was even capable of doing the specialized work of a gunsmith, replacing lock springs and working on firearms as sophisticated as a Henry repeating rifle.

Certain classes of artifacts stand out as reflections of the other businesses in the community. Nearly all non-farming tool fragments recovered from the shop were related to woodworking in some way. The repair, and



Figure 16.3. Scrap pile formerly located inside the smithy at Bemis Heights, New York (Dean 2010).

possibly the manufacture, of woodworking tools was apparently an important specialization of this shop, undoubtedly because four of the other businesses at this intersection involved woodworking. As previously mentioned, early maps show the presence of a wagon or wheelwright shop next to the smithy across Parkhurst Brook, a sawmill next to that, and a cooperage and carpenter shop across the highway.

The smithy would have been busy making and repairing tools for these businesses. Until the last quarter of the nineteenth century a wagon shop, like a carpenter shop and cooperage, would have made everything from scratch, including the wooden bodies for everything from heavy wagons and sledges to highly finished items such as buggies and sleighs. The latter normally required much delicate planing, shaving, and

carving, as did the manufacture of wheels, tongues, and whiffletrees (Sturt 1993:95).

The most basic woodworking operation in such shops is the sawing of stock from timber. In Parishville Center, the stock itself could no doubt be obtained directly from the neighboring sawmill cut to order, then cut and shaped as needed for specific applications and set aside to cure. Many often-needed parts such as hubs and felloes would be roughed out at this time and stored to season until needed (Sturt 1993:27–31, 41–49). Saws used by carpenters for cutting and shaping this stock for a particular job are qualitatively different from those used by woodsmen or in a sawmill, which were of fairly heavy gauge steel with large teeth and, in late-nineteenth-century mills, both large and circular. The saw fragments found in the smithy were of the types used by carpenters: panel saws and frame saws with medium to small teeth similar to those used today (Mercer 2000:136–163). Several file fragments found at the site were small and triangular, of the type used for sharpening saw teeth.

Finer shaping was done with planes, chisels, and files, while rounded pieces such as chair legs and wheel spokes were shaped by some combination of hewing hatchet, spoke shave, or lathe. The finishing of larger surfaces was achieved with a box plane and draw shave, and smaller surfaces were shaped with specialty planes and chisels. Decorative surfaces were done with moulding planes that carved long contours such as those found on a stair rail or wainscoting. Fine contours and detail work were finished with chisels, planes, rasps, and files. Final finishing, before sandpaper became common, was accomplished simply by files and the meticulous use of the cutting tools (Sturt 1993:95; Mercer 2000:135).

When the shop was dismantled, all of the tools, fixtures, and any remaining scrap were taken away. Only small fragments remained of steel or case-hardened iron tools, including worn-out or broken rasps, the worn steel bits of cutting tools such as chisels, plane irons, drill bits, saw and scythe fragments, and one axe. Virtually all iron pieces of any significant size had been removed from the site, while these small items of steel were left behind.

At first glance it seems odd that steel, which at the time was more expensive than iron (Schwarz personal communication 2008), should have been left behind while the iron was taken away for reuse. However, there is a practical reason for this. These items consisted of steel that had been welded to iron. This would have rendered them useless for recycling because, while it is relatively easy to weld steel to iron, it is nearly impossible to weld either to a mixture of iron and steel because of the different properties of the two materials (Light

2001:7). As Master Blacksmith Ken Schwarz explains:

If I make an axe from iron and weld steel into the bit, the owner uses it until there is 3/8" of steel left on the edge, and it is brought back to me for laying new steel on the edge, that poses a challenge. As you know, iron and steel weld at different temperatures. The iron has to be hotter by a few hundred degrees than the steel. If I am heating them up as separate pieces, I can achieve that by withdrawing the steel from the fire if it is heating up too quickly, and leave the iron in the fire to continue heating. If steel remains in the edge of the axe, it will burn when getting the iron up to temperature. Therefore, if I am making that type of repair, I would cut off the 3/8" of steel from the body of the axe before welding the new steel on. (Ken Schwarz, Anderson Blacksmith Shop, Colonial Williamsburg personal communication 2008)

Because the cut-off pieces necessarily included a small amount of the iron from the tool body, there would be no point in retaining them as scrap. Case-hardened iron (iron with a hardened steel surface), which was commonly made by cementation or cooking an iron object in a sealed container with charcoal (Gaynor and Hagedorn 1993:78) would probably have the same characteristics as steel welded to iron and be useless for recycling.

A number of file and rasp fragments were found on the site. Rectangular, square, and round files, when broken into pieces, are easily mistaken for pieces of iron stock, but most of the Parishville Center file fragments were from wood rasps rather than metalworking files. While the large teeth of a rasp may be completely rusted away, close examination reveals a pattern of indentations where the file maker drove his punch into the annealed (unhardened) steel to raise each tooth before tempering it to its final hardness (Mercer 2000:293). One example from the site also had the characteristic curvature of a "riffler," a curved file commonly used in sculpting curved details on wood (Figure 16.4).

As a ready source of pure steel, solid steel files were (and are) frequently reused not only to make steel-cutting bits for iron tools but also to make a variety of other tools such as nail and bolt heading tools, chisels, saw sets, threading dies, or anything else small that needed to be made of steel rather than iron (Gaynor and Hagedorn 1993:79; Plummer 1999:117, 119, 132, 139). Therefore, these rasp fragments would probably not have been left on the site if made completely out of steel. The very fact that so many remained suggests they were of only case-hardened iron. One of the rasp fragments shown in Figure 16.4 is split along the grain. This indicates it was composed of case-hardened



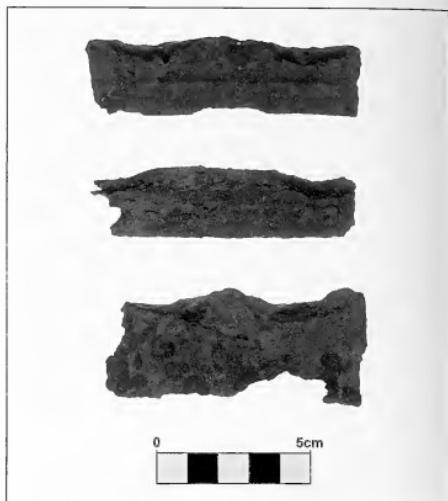
**Figure 16.4.** Two rasp fragments, one of which is clearly the tip of a riffler (NYSM Accession No. A2009.09A), with a modern riffler for comparison. The fragment at right is bent and split, suggesting that it is case-hardened wrought iron rather than pure steel.

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wrought iron rather than of solid steel as most files and rasps were during the late nineteenth century. The use of case-hardened rasps on this site suggests they may have been locally made, perhaps because of the relative cost of obtaining the imported solid steel files in common use elsewhere.

On the other hand, there seems at first glance to be no direct sign of interaction between the Watts smithy and the neighboring cooperage. No iron barrel hoop fragments were found on the site. No fragments of the very recognizable tools of the cooper's trade, such as the curved cooper's froe, curved drawshave, or scorp were found, although one might have expected them to be present. This could simply be because identifiable tools of any size larger than files are generally very scarce on this site because they were large enough to make them worth recycling.

Evidence of a relationship between the two businesses may be present, however, in the form of one of the most numerous types of tool fragment found on the site. Sixteen fragments of scythe blades, most ranging from 12.7 cm to 20.3 cm (5 in to 8 in) long, were recovered. As the place for repairing farm equipment, this shop often would have received broken scythe blades for repair or traded in by customers as scrap items. There is no surprise in this. What is surprising is that all of these pieces were short, as if old blades had been deliberately broken into shorter sections, and bore wear on the back from reuse (Figure 16.5). Specifically, the wear is similar to that seen on much-used froe blades. A froe is an implement commonly used for "riving" or splitting shakes from a section of log. The repeated impact of a wooden maul on the back of the blade causes denting and spreading. For this reason, froe blades



**Figure 16.5.** Scythe blade fragments (NYSM Accession No. A2009.09A). Note that they appear to have been struck repeatedly with a maul on the ends, while the center remains undamaged.

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are made thick to withstand a heavy beating. However, the Parishville Center scythe blade fragments are not. They are thin and light because when a scythe is in use, the cut relies on the speed of the moving blade and the keenness of the edge because the object of the cut (grain or hay) offers so little resistance. They are made thin for lightness and ease of sharpening and, in their original form, are never subjected to pounding.

Nonetheless, these scythe segments were apparently being used with a wooden maul as a froe would have been, except the material being split could not have required much force or these relatively fragile blade fragments would have been useless. There appears to have been no need for a handle, either, which implies the use of light force. In addition, many of them have an undented section in the center that measures 2.5 cm to 3.8 cm (1 in to 1½ in) wide. The most likely use for such an ad-hoc tool is in splitting "hoop wood" for barrel hoops, a common practice in the early nineteenth century. According to Eric Sloane (1962:30) bundles of hoop wood, thin, 1.8-m (6-ft) poles from hickory and ash saplings, would be collected in the springtime when the sap was rising. These could be kept fresh by



Figure 16.6. Cooper driving a wooden hoop onto a barrel, from an eighteenth-century encyclopedia.  
(Gillespie 1987).

weighting them down with stones in water until they were needed, when they would be pounded with a heavy wooden mallet to loosen the fibers and then split lengthwise to make barrel hoops. Sloan depicts a pole being split with a corn knife, an implement similar in thickness to a scythe blade.

The undamaged area in the middle of each of the scythe fragments is approximately the width of a hoop pole, as if the blade were being driven into the material by pounding with a wooden maul on alternate sides of the split. Once the split was long enough it could simply be peeled apart by hand. The resulting withe could then be wrapped around a barrel, the ends being locked together by one of several different methods. A broader hoop could be made by twining or braiding. The wet hoop was driven down onto the expanding body of the barrel or bucket with a tool somewhat like a caulking tool used in shipyards (Figure 16.6), and in drying would shrink and draw the barrel staves tightly together, producing a hoop described by Sloane (1962:30) as "hard as iron and longer lasting."

## FLOOR PLAN OF THE WATTS SMITHY

Just as the work being done in a smithy is tailored to the needs of the community, the floor plan represents a work space tailored to that work. It is also greatly influenced by the preferences of the smith, and can be quite idiosyncratic. The trade literature of the late-nineteenth and early-twentieth centuries is replete with articles from various smiths, each touting his own arrangement as the most efficient, but they all seemed to be different (Richardson 1998).

Certain basic fixtures were usually present in a rural smithy and can be identified archaeologically either by their individual physical characteristics or by their relationship to each other within the limits of the shop. Smithies where similar kinds of work were done, although varying in layout, would be planned around similar kinds of work areas. A smithy in a rural farming community such as the Watts shop in Parishville Center would therefore contain much the same work areas as any other rural shop, although they might be arranged differently. The smithy might have included:

1. The primary work area containing forge, anvil, slack tub, and vise.
2. The detail area containing benches, a post drill, a machinist's vise, a leg vise, and small tools like files. Iron filings and hammer scale would be present surrounding the bench locations, with small pieces of iron and steel scrap and cut bolts and rivets.
3. The shoeing floor, an area where horses were tethered to be shod. This activity also might have been performed outdoors, weather permitting. Horseshoe nails would be abundant. The ratio of nail points to heads would be high, approaching 50 percent.
4. An open floor for working on wheels and wagons. Unless significant specialized tools are present, there might be few artifacts remaining. Much of this work also might have been done outdoors.
5. Fuel storage. Charcoal must be stored indoors, usually as far from the open flame as possible. Coal can be stored outdoors. Outdoor bins tend to produce a broad scatter of spillage over time. However, coal purchased by the bag in small quantities might leave little trace.
6. Stock storage (for both wood and iron). Unless pieces of iron stock were left behind, the only clue to such a storage area is the lack of traffic and activity features on the floor. Sometimes a loft or attic would be used.

7. Scrap storage. Normally this area is easily identified by the large amounts left behind. If the site has been stripped of all significant metal, like the Watts smithy, the scrap storage area can be inferred from the presence of concentrations of horseshoe nail heads, cut bolts, and rivets found in non-work areas. In practice, these items often remain with the shoes or hardware to which they were originally attached when those are salvaged as scrap, but they also are likely to fall off when those items are tossed into a pile or container for storage.
8. General storage for tools and often-used supplies like horseshoes, wheel spokes, and hubs. Typical examples may be seen in Figure 16.8 and Figure 16.9, illustrating the possibility that any empty space on the walls or in the rafters could be used for this. It was common for smiths to keep sets of shoes on the walls, and tools likely were stored close to where they would be used. Small wooden items might have been stored under workbenches.

Most of these areas can easily be seen in the Bardo blacksmith shop from Beaver Falls, Lewis County (Figure 16.8), carefully recreated at the Adirondack Museum in Blue Mountain Lake, New York. This shop was built in 1875 in a frontier location similar to that of Parishville Center and operated until the 1950s.

The primary work area will be present even when most of the other activity areas are absent. Although the arrangement of most of the activity varies, the basic set-up of the primary work area is fairly uniform. It was designed around the need to bring the work from fire to anvil as quickly as possible, in order to avoid unnecessary cooling. Likewise, the location of the slack tub close to the anvil and forge relates to the frequent need to cool hot items quickly.

The anvil will therefore be located about an arm's length from where the smith stands at the forge, so that the smith has only to turn to reach it. The slack tub, unless it is built into the surface of the forge, is only a reach away to the immediate right on the floor. The blower or bellows is to the left, where the smith can operate it with his left hand without moving from his place in front of the forge. The "leg vise" or "post-vise" that provides a "third hand" for the smith (Andrews 1994) is usually mounted on a bench. It will be within two to three steps of the forge, as will any other large fixture used for shaping metal while it is hot, such as a swage block for shaping stock or a conical mandrel for forming rings. A rack of hammers and tongs of various characteristics should be within easy reach, often on the forge itself or a workbench nearby. The spatial relationship of these fixtures remains much the same from one smithy to another unless the smith is left-handed, in which case the layout may be



**Figure 16.7a.** The Jaquis Blacksmith Shop, looking to the left from behind the anvil. The workbench can be seen below the window, with leg-vise attached. Shoes are stored on the kegs below. The blower is next to the forge at right.

Courtesy of the Parishville Historical Museum.



**Figure 16.7b.** The Jaquis forge. This is a wooden, four-legged style. The smith would have stood between the forge and anvil when working. The can below the forge is for ash and clinker, released from the hearth by turning the small lever on the side of the forge.

Courtesy of the Parishville Historical Museum.

reversed. The most basic necessities of a smithy are exemplified by the tiny smithy used by Harry Jaquis (the last blacksmith in Parishville, two miles east of Parishville Center) during his retirement in the mid-twentieth century (Figures 16.7 a-c).

Archaeologically, an earthen smithy floor will tell almost anything we need to know about the arrange-

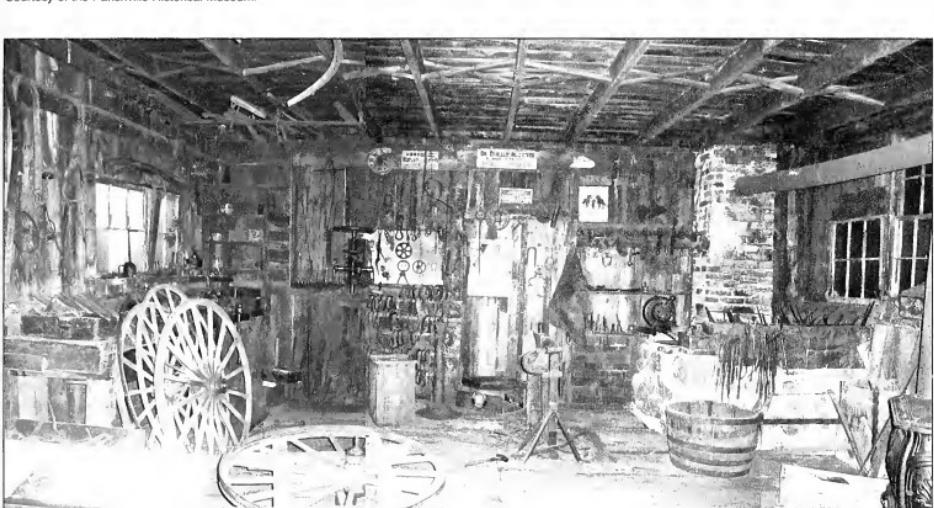


**Figure 16.7c.** Tongs, hammers, etc., are kept handy on the movable bench at right. The box on the floor is a typical farrier's toolbox, carried when on-site shoeing is done. Except for the absence of a slack tub, Figures 16.7a–c show the absolute basic arrangement of a smithy.

Courtesy of the Parishville Historical Museum.

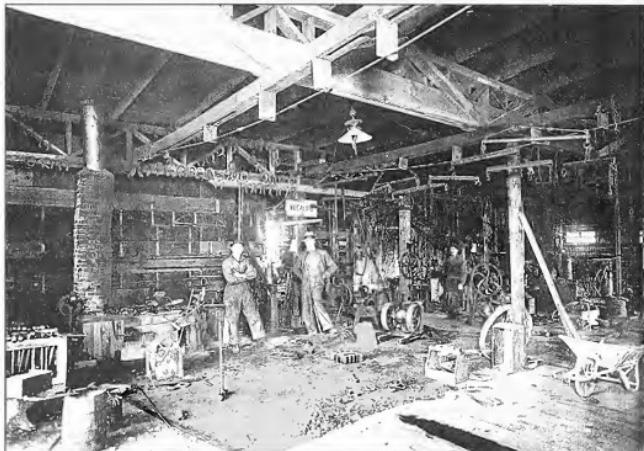
ment of these work areas. If the shop had a wooden, stone, or brick floor, this kind of interpretation would be more difficult but not necessarily impossible. Concrete floors, however, would prevent the buildup of work deposits and, because they coincide in time with portable factory-made cast iron forges, might well prevent the archaeologist from discerning the layout of a shop altogether.

Fortunately, dirt floors seem to have been preferred in rural shops. While a wooden floor is easier to keep clean, continual care must be taken not to let dropped pieces of hot iron set fire to it. A dirt floor, however, is impervious to fire and is much easier on the feet during long hours of standing and walking on it. Being relatively soft, it is also easy to "set" an anvil and other heavy fixtures in place on it (Andrews 1994:11). A relatively common compromise was to have a wood floor where it was needed and a dirt floor in the hot-working area surrounding the forge. An example of such a shop may be seen in Figure 16.9. This is the kind of floor found in the Watts shop at Parishville Center.



**Figure 16.8.** The Bardo Blacksmith Shop at the Adirondack Museum. Functionally very similar to the Parishville Center blacksmith shop, this shop is arranged differently. The view is from the area that would have been the shoeing floor, just inside the door. Note that no stock is stored in this place but may have been kept in another building, an attic, or on a wall to the left of this viewpoint in what is today the visitors' viewing area. A normal leg-vise is attached to the workbench at left, behind the wagon wheels, but the primary vise seems to have been a spring or pedal vise, seen just to the right of center in front of the anvil. The forge, very similar to Robert Watts's forge except for the brick chimney, is in a corner and uses a mechanical blower (circular object to the left of the chimney). The slack tub is in front of the forge, on the right from the smith's point of view. Tools are hung on the forge rather than on a tool bench.

Courtesy of the Adirondack Museum.



**Figure 16.9.** An example of a shop with a partial plank floor, the area surrounding the forge (at left) remaining bare dirt. Notice the stock racked on the back wall and horseshoes and whiffletrees hung from the rafters.  
Courtesy of Ken Schwarz, Colonial Williamsburg.

Because a dirt floor retains evidence of the work done upon it, excavations at the Watts Blacksmith Shop revealed the locations of some of these different work areas and indicated others by default (Figure 16.10). The most obvious activity area was the primary work area surrounding the forge. This forge was of local field-stone, about 1.1 m (3.5 ft) wide and an unknown but similar distance front to back. It would have stood waist high and had a hearth of locally made brick mortared together with fireclay. The small amount of brick debris present suggests either that the chimney was not of brick, probably consisting of a metal hood and stovepipe, or that the shop was scavenged for brick after abandonment. The anvil was a quarter turn to the right of the smith's position at the forge, mounted upon a short section of log standing free on the surface, rather than set into the earth in the traditional manner. This implies that most of the work being done here toward the end of the shop's life was light and that there was some need to leave the anvil free to be moved. The round feature representing the base of the anvil post was covered over with hammer scale, indicating that the anvil had been moved at least once, allowing scale to build up over the original location.

If a bellows was used, it would have been located to the left of the forge, but there is no evidence of whether the forge was blown by bellows or mechanical blower.

The slack tub, apparently a half-barrel similar to that

in Figure 16.8, was identified by the decayed remains of a barrel bung to the immediate right of the forge. The direction of the leg-vise from the anvil was indicated by a footpath worn into the floor between the anvil and a large flat stone 3 m (9.8 ft) to the south-southeast. This stone, located on the edge of a wooden plank floor, was probably the foundation for a leg-vise mounted on a workbench there, the stone firmly supporting the heavy vise on a soft dirt floor.

Approximately 85,000 horseshoe nails were excavated overall and were catalogued according to whether they were heads or points. The shoeing areas, of which three were identified, were easily located by the density of horseshoe nail fragments and the high proportion of point fragments compared to heads. The main shoeing floor was in the northwest corner of the shop to the right of the forge. It is replicated on a smaller scale outside the shop, where a  $0.61 \times 2.7\text{-m}$  ( $2 \times 9\text{-ft}$ ) stone platform once supported a watering trough, and a third, much smaller, concentration was found near the fuel bin where a second horse could be tethered during inclement weather. A shoeing floor must be a place where a horse can be comfortable and relaxed while being shod (Snye personal communication 2004), usually a dark, quiet spot against a wall where it could be tethered to a ring. Outdoors, the area next to the watering trough would have been a relaxing spot for horses, and that is where the second largest concentration of

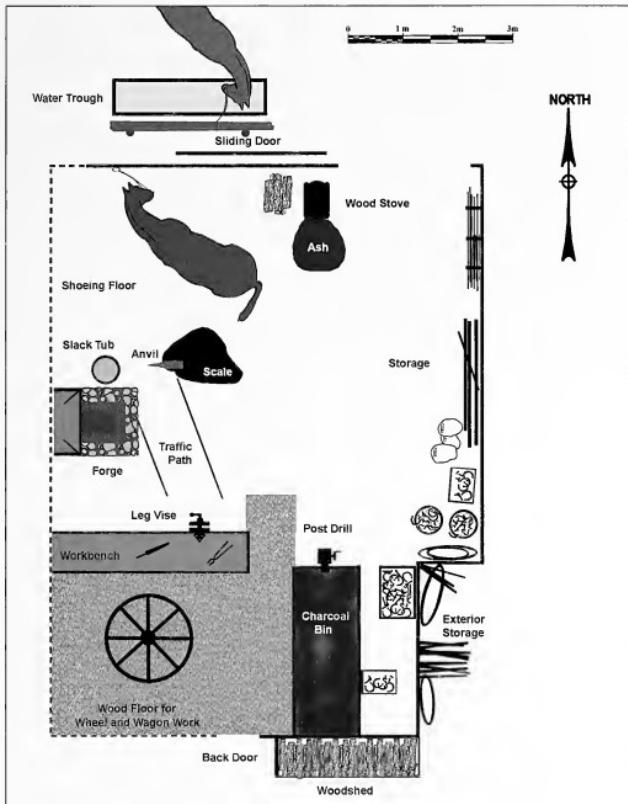


Figure 16.10. Interpretation of the Watts Blacksmith Shop from archaeological data.

horseshoe nails was found.

The presence of this trough directly in front of the right side of the façade, as seen from the road, indicates that the main door must have been on the left. The door would have had to have been large enough to allow the passage of horses and wagons. The heavy construction of the foundation at the right front (northwest) corner suggests the door was a sliding one whose weight required extra support in that corner when open.

The south end of the shop appears to have been an addition enclosing a plank floor separated from the dirt floor of the primary work area by a workbench, the presence of which is indicated by the stone that once

supported the leg vise. While there is no direct evidence to indicate its function, this planked area is approximately the same size and distance from the forge as the wheel-working area in the Bardo smithy, and seems likely to have served a similar function. If so, it would have contained a wheel stand, tire-upsetting machine, and other items related to wheel construction and woodworking. The workbench would have stood between the two halves of the shop, serving both.

Although Parishville Center had a separate wagon shop where such work was done, that appears to have been abandoned sometime between 1870 and 1880, when no woodworkers or wheelwrights are mentioned

in the census (U.S. Bureau of the Census 1870, 1880). Many small wagon shops began to lose much of their business after the Civil War, when wagons, carriages, and sleighs as well as the iron parts for repairing and building them became commercially available from factories. The cost of craftsmanship could not compete with the cost of machine production (Sturt 1993:197–203). By 1897, for instance, the Sears, Roebuck catalog devoted seven pages to iron wagon and sleigh fittings and 18 pages to wheeled vehicles, including 40 different types and styles ranging from two-wheeled carts and farm wagons to stylish surreys and Phaetons (Israel 1968:57–63; 710–727). Many of the combined blacksmith and wagon businesses, reduced from manufacturing and repairing vehicles to repairs alone, retreated from two structures into one.

The Bardo smithy (Figure 16.8) is comparable in size to the Parishville Center shop and once also had a wheelwright shop in a separate building. When George Bardo's wagon business began to decline, he moved his wheelwright work into the smithy, where it occupied a space set aside for that type of work, the left half of the shop as seen in Figure 16.8.

Two fixtures that may have been present in the shop were not actually identified archaeologically. A small woodshed built on the outside of the rear wall undoubtedly held fuel for a wood stove somewhere in the shop. Contrary to common belief, most fires on the forge are small and the heat is focused upward toward a small area. They do not heat a large space, so a wood stove would have been necessary in winter. It is noteworthy that the stove in the Bardo smithy stood close to the forge and the main work area (Figure 16.8). It also seems likely that a tiring stove should have been present for heating the iron tires prior to mounting them on the wheels. It is possible that one stove served both functions.

The earliest deed to the smithy property reserves the right of access to the sawmill dam for water to operate a triphammer. Whether one was ever actually installed is unknown. No evidence of one was encountered during excavation. If present, it most likely would have been located adjacent to the brook to the left of the forge, where a water wheel would have been powered from a wooden sluice fed by the sawmill dam upstream.

The remainder of the shop may well have been where iron, steel, and lumber stock was stored, either on wooden racks or standing against the wall. The low level of soil discoloration and relative lack of artifacts along the east side of the shop indicates that no work activity was taking place there. A single piece of round iron stock was found just outside the foundation in this area, where it may have been dropped while the shop was being removed.

The fuel bin was clearly indicated by the presence of a thick lens of charcoal containing many large pieces. The bin appears to have been relatively small, approximately  $0.91 \times 1.8$  m (3 x 6 ft). Because charcoal burns quickly, this must represent only fuel for immediate use. Additional storage may have existed in the form of a separate shed, or perhaps the smithy received regular deliveries from the charcoal makers. During the final occupation of the shop, the construction of the addition mentioned above allowed the fuel bin to be moved farther away from the forge, where it can be seen superimposed on the charcoal from the earlier location.

While coal was apparently in use as well, clinker and spilled coal are scarce on the site and no storage area was found. If, as suggested above, coal was used only when available or only for certain applications such as welding, it could have been purchased by the sack. If so, any coal remaining when the shop ceased operation could have been removed from the site without leaving any residue. While it is still possible that an external coal bin existed behind the shop, it seems unlikely because this kind of bin usually produces an extensive scatter of spilled coal and no such scatter was encountered.

As in all such shops, the walls would have been the favored place for storing numerous items such as measuring tools and supplies of horseshoes. It would have appeared much as seen in Figure 16.8. The joists overhead probably supported many items as well, as in Figure 16.9, where extra whiffletrees and horseshoes may be seen hanging overhead. It is also possible that a loft or second story existed, but the light construction of the foundation seems to indicate otherwise.

A hypothetical floor plan for the shop based on the results of the archaeological work is shown in Figure 16.10.

## SUMMARY

It cannot be overemphasized that the interpretation of a site representing a specialized industry such as this cannot be done adequately without either extensive specialized knowledge on the part of the investigator or extensive input from workmen who understand the craft, preferably both. Many of the artifacts and features to be encountered are outside the normal scope of historical archaeology and need specialized input to be understood.

Even with this consideration satisfied, an interpretation of a shop's floor plan, like any archaeological interpretation of a site no matter how detailed, can only be regarded as a "best guess" based upon an extensive excavation and detailed analysis. Nonetheless, in this case our reconstruction is likely to be quite close to the truth

because of the limited number of possible arrangements. The specific locations of the components of the primary work area, shoeing areas, and fuel storage, which are not in doubt, limit the possible locations of the other work areas such as stock storage and wheel work, so that the overall layout of the shop could not have been much different from that shown in Figure 16.10.

The scarcity of iron objects on the site limits the amount of information to be obtained from artifact analysis, but even so it is possible to tell what primary functions the smithy served within the community. Artifacts from the Watts smithy reflect the primary importance of farming, but also reveal important areas of specialization directly related to the wood-based industries in the immediate neighborhood. The scarcity of scrap and other iron items, the small amount of coal used in the shop, and the presence of locally made files directly reflect the difficulty or expense of obtaining materials from outside the region. The use of charcoal as the primary fuel and the local concentration of woodworking specialties evidenced in the artifact collection reflect the abundance of wood in this community on the edge of the wilderness.

## ACKNOWLEDGMENTS

Special thanks go to the smiths who helped to identify artifacts and interpret the layout of the smithy: Ken Schwarz, Master Blacksmith at the Anderson Blacksmith Shop, Colonial Williamsburg; John Scarlett, Rossie, New York; Marty Snye, Ogdensburg, New York; and Steve Kellogg, Adams Center, New York, now at the Farmer's Museum in Cooperstown, New York.

Thanks also to Emma Remington, Parishville Historian, and Robert Riggs, owner of the site, for their insights into local historical matters.

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